PULP & PAPER INDUSTRY

"The Cellulose Age"

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Changes In Ownerships

ALL industry is in a continual state of change. Some industries change almost imperceptibly; others display rapid transformations within short periods. The pulp and paper industry has been one of moderate change, with a marked acceleration during the past ten years.

Industry changes, too, in its personnel. And in some measure, in the character of its personnel. This has been made particularly plain in recent years, and now it has been emphasized, after the strenuous war, by the retirement or death of several top men whose loss is keenly felt.

For decades the ownership and management of the industry was predictable. It fell into definite patterns. This situation made for an attitude which, if it could not be called comfortable, could at least be called one of calm.

The change became visible several years ago when men from banks and investment houses, and from other industries, began to join the ranks of the descendants of old papermaking families. Such men became, for the most part, "good citizens" in the industry. There is something about the tradition of the industry which affects newcomers a little more than newcomers are able to affect the industry as a whole. And this is not to say, by any means, that the newcomers were not good for the industry.

General business trends indicate that there will be still more new blood. We see big magazines and newspapers taking a hand in the industry. We see other industries taking a hand in it. We see international business men making their entrance. The demand for pulp and paper, the increasing pulpwood problem, the whole world-wide scene, sharpens the picture. Men grow bolder, and so do various units of the industry.

The old-fashioned history teacher used to have a favorite question: "Now was this a Good Thing, or was it a Bad Thing?" It is a question no longer pertinent. The change is here and it is still in motion.

A Letter We Were Pleased to Get:

"On behalf of the Florida Future Farmers of America and the pulp industry in Florida, I wish to take this opportunity of thanking you and your staff for the splendid treatment you gave the story on the thinning demonstration at the Tate School.

(signed) William F. Jibb,
Florida Board of Forestry and Parks."
Chief, Public Relations,

Barker Story

Lester Robbins writes a column for the New York *Times* Sunday magazine and recently referred casually to the magic of a hydraulic barker as used in the pulp and paper industry. A reader asked him for his source, and—as happens to the best of us—he couldn't find it! In this extremity he appealed to Mary Reinmuth, advertising manager of Fraser Industries.

She knew just what to tell him: that PULP & PAPER Industry is the best source on hydraulic barkers, and forthwith she sent to him a copy of the May, 1947, issue which described the Powell River Company installation. Columnist Robbins is much relieved, and his curious reader maintains his faith.

In This Issue—

Rayon Industry Eyes Territory

There have been few new developments in the Alaska situation since PULP & PAPER Industry last month published the first and exclusive story of the three most active factors which are projecting mills in the north. But obviously all three plans are on the move, and the talk of Alaska pulp operations has strengthened in the last month. This may be due partly to the fact that recent dependable studies by Wall Street indicate a solid logic in an expansion of the dissolving woodpulp industry.

There is also evidence that combined rayon interests are facing northward for added assurance of the continuance of that industry. Current studies have indicated that the bulk of rayon raw supplies must come from wood cellulose, and it is also predicted that there will be much less disparity, and perhaps none at all, between prices of cotton linters and wood cellulose supplies. Experts indicate that continued growth in demand may possibly be reflected in a price structure that will yield profits sufficient to justify new installations.

Thus while public attention has been focused on newsprint in connection with Alaska, and while one of the projected operations includes a newsprint mill, the future of the northland as a pulp producing area appears to be of possible greater importance.

Ben B. Mullen of Juneau, now making headquarters in New York and projecting the idea of $10,000,000 mill at Sitka of 150-ton capacity, was known to have been in conference with the Forest Service in Washington in June. He followed this with a trip north, and he has indicated he is well pleased with the progress he has been able to make, both in Alaska and in the East where he hopes to interest concumers in financing.

PULP & PAPER learned that consultants of various rayon companies have been conferring on almost an industry-wide basis regarding the future of raw materials in general and the Alaska possibilities specificially. Although there is no indication at present that a rayon company plans pulp operations in Alaska, it is not beyond possibility that such a company, or group of companies, might look with favor on assisting an operation financially in return for favorable supplies.

There are two important deterrents to a rayon pulp mill in Alaska, however. One is that such a mill would cost much more than even the fantastically high cost estimated for any high quality pulp mill requiring bleach plant and a large research and technical staff. Certainly, $40,000,000 is not a figure that is considered unreasonable as an estimate just for construction and equipment.

Secondly, it is well known that for any newcomers to consider entry in the rayon pulp field an essential is a great amount of expensive and time-consuming research.

Rayon manufacturers may be expressing wishful thinking in talking of Alaska, but on the other hand they are "well heeled" with what it takes to finance such a project if they are really pressed for raw material.

Canadian TAPPI Plans 1948 Meeting

The Technical Section, Canadian Pulp and Paper Association, will hold its 1948 summer meeting in Vancouver, B. C., according to a decision reached at the 1947 meeting at St. Andrews, N. B.

It is expected that most of the eastern delegates will be given an opportunity to visit all British Columbia pulp mills during their visit to the coast.

Engineer at Ste. Anne

Max O. Griffith has been appointed resident engineer of the Ste. Anne Paper Co., Beaupre, Quebec, succeeding R. W. Stearns, who has joined the central engineering staff of Abitibi Power & Paper Co. in Toronto.

FOREST SERVICE MAKES NEW OFFER AS RESULT OF INTEREST SHOWN IN ALASKA

Early in June the Forest Service issued a Sale Prospectus on 1,500,000,000 cu. ft. of timber 8 million bd. ft. or 16,000 cords), known as the "Petersburg Pulptimber Unit" in the Tongass National Forest. With it was a sample of the pulp timber agreement, a copy of the published advertisement, and the USF's "Confirmation of Oral Bid" Form. The unit is near Petersburg and Koke, includes all of Kuiu Island, most of Kupreanof Island and a few mainland strips.

When the sale can be held depends upon the action of Congress on a joint resolution to authorize the Secretary of Agriculture to sell timber within the Tongass National Forest in Alaska while claims of Alaska Indians and other natives to such land and timber remain undetermined.

In this particular area, certain timberlands have been awarded to Indians on the basis of aboriginal claims initiated by for Interior Secretary Ickes and ownership of other sections are still undecided. Further action and review of all Indian claims, however has been promised by Secretary Krug.

Under the agreement the successful bidder must have at least $8,000,000 immediately available for construction.

Frank Heintzelman, chief of the Alaska Forest Service, told a reporter the quantity of timber covered by the agreement would be sufficient to eventually produce 525 tons a day.

Closing of the deal would mean the expenditure of $30,000,000 to $40,000,000 to build a pulp mill, power plant and a town of 2,000 or 2,500—one of the largest in Alaska—16 miles east of Petersburg.

The sample sale agreement provides that the lowest bid acceptable for pulp timber will be 85 cents a 100 cubic feet (slightly less than one cord). Heintzelman said this is lower than the prevailing price on the Pacific Coast.

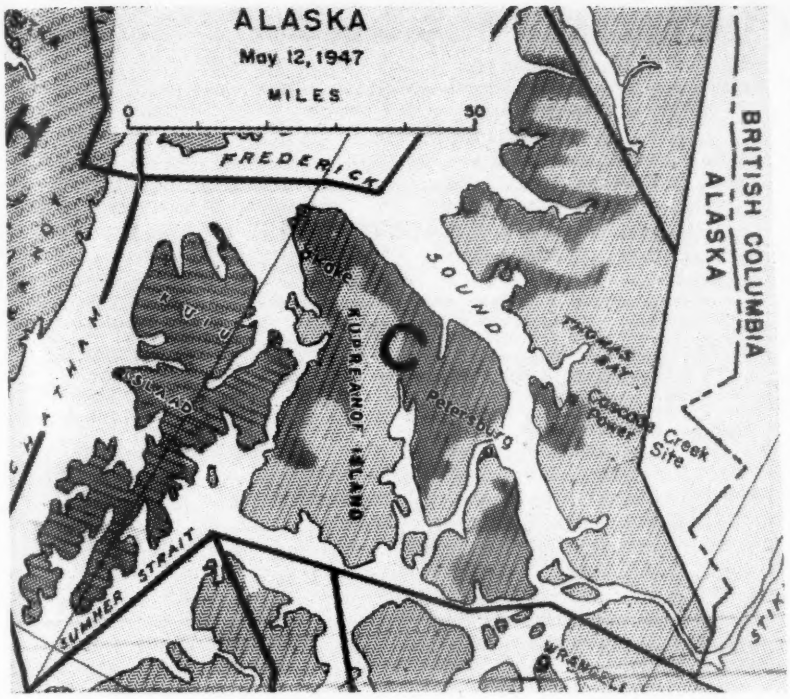
Approximately 75% of this stand is estimated to be hemlock, the remainder Sitka spruce with intermixed cedar. The commercial forests are broken into large blocks "by frequent extensive non-commercial areas" in which cutting will not be required. The report states that all but 15% is well suited to pulp manufacture, the 15% being more suitable for lumber, plywood, shingles or piling.

The sales agreement indicates that should the designated area be insufficient for full-scale operation until June 30, 2000 A.D., the Forest Service will "designate additional cutting areas," but not in excess of the 1,500,000,000 cu. ft. total. After an initial operating period ending June 30, 1960, operations are to be divided into five-year periods. Logging units and boundaries will be determined for each period in advance. Adjustments may be made by the regional forester should fire or catastrophe require it. Timber for local use, not to exceed 2%, is allowed. The U. S. forester may also reserve strips and blocks which have special scenic value, or as recreation sites, or to protect fisheries.

According tothe agreement, veneer logs, sawlogs, pulp logs, cordwood and "other primary forest products" must not be transported for manufacture outside the Territory. The mill must be of a capacity of not less than 150 tons, and must be "installed" within three years from date of agreement. Capacity must be increased to 300 tons within five years, and may be increased to 525 tons within ten years.

Rates for timber to be made into pulp are left blank on the sample agreement, but rates for material to be manufactured for sale by the purchaser in other forms are indicated as follows: $3.00 per M feet log scale for spruce; $1.50 per M feet log scale for cedar; $2.00 for hemlock and other species; 1.5 cents per linear foot for piling or poles over 95 feet, and one cent on poles less than 95 feet. There are possibilities for rearrangements of stumpage rates. Ten cents per thousand feet board measure for scaled logs, and five cents per hundred cubic feet for material so measured for the total cut of sawtimber and pulpwood, must be made in addition to the stumpage rates.

The Petersburg unit has been discussed for several years. It is believed that the interest of the D. & F. Company, and perhaps others. in this area has led the USF to make this the first offering.



THIS MAP SHOWS TIMBER UNIT offered for sale by U. S. Forest Service in Alaska as direct result of inferest shown by two prospective builders of pulp or pulp and paper mill in the territory.
The more heavily shaded area is the timber sale unit. It is most of the area in the C section—all of Kuiu Island, most of Kupreanof Island and other strips south of Petersburg and to the east, including Cascade Creek power site.

NEW MILL IN EAST

Announcement is expected momentarily of a large new pulp operation to be installed in eastern North America, PULP & PAPER learned from authoritative sources last month.

Dissolving grades will be manufactured. The company involved is well known and has already made recent news in the sulfite and kraft industry.

Whitehead in Britain

C. R. Whitehead, vice president of Consolidated Paper Corporation and regarded as the dean of the pulp and paper industry in eastern Canada, left Montreal recently on a visit to the United Kingdom, accompanied by Mrs. Whitehead.

SECRETARY KRUG ANSWERS QUESTIONS REGARDING HIS STATEMENTS ON ALASKA

When the national news services recently carried articles quoting Interior Secretary Krug saying a contract was close to being completed with a large company to build a newsprint mill in Alaska, PULP & PAPER Industry, in the interest of its readers, asked Mr. Krug for some further information.

He had previously cordially given to this magazine a direct, personal assurance that he would be ready to answer any such questions when the occasion arose.

Here are our questions and Mr. Krug's answers:

Q. Your statement indicates that timber was made available to this company. Where is this timber located? What is the situation regarding its title and what, if any, part has the Department of Interior in this sale?

A. Timber was not made available to any single company. It is available to any company willing to enter into a contract with the Department of Agriculture. The timber is located in the Tongass National Forest. These are public lands under the control of the U. S. Forest Service and the title is vested in the U. S. Government. The Department of Interior has no part in this sale. It has done its utmost to encourage development of a pulp and paper industry in this area in order to speed development and industrialization of Alaska.

Q. How is the timber to be sold? Has the procedure or previous plans been changed to give long term instead of short term contracts?

A. Since the contract is under negotiation the terms are not known at this time. I suggest that you write to Mr. Lyle F. Watts, Chief Forester, U. S. Forest Service, Washington, D. C. (See summary of contract later issued on page 28.)

Q. You are quoted as saying that a survey by your department reveals that six mills can be supported perpetually by Alaska timber. Who made this survey and when? Is the survey available to the public and if so, how can we obtain a copy of it; or is it available to the people who may be interested in building a mill?

A. The survey in question is that of the U. S. Forest Service.

Q. You are quoted as saying that rates for transportation of machinery to Alaska are exhorbitant, but that you know of a solution of this problem. What is this solution in brief? (We enclosed the statement made in Seattle at the Pacific Northwest Trade Association meeting on April 14, 1947 by Leslie R. Baker, vice president and general manager of the Alaska Steamship Co. that disruption of shipping services to Alaska will continue for a long time unless there is a better basis for negotiations with unions and a healthier labor atmosphere.)

A. The problem of high freight rates on transportation to Alaska is not confined to the transportation of machinery. It will only be solved when the transportation services can be placed on a year-round rather than seasonal basis of operations with two-way rather than one-way traffic.

Q. In all your statements carried in the press regarding Alaska development you refer chiefly or solely to newsprint. It has been pointed out by a Department of Commerce analyst as well as industry leaders that Alaskan timber will make as good sulfite pulp as the timber in Washington state. The highest prices and highest quality pulps are made by this process and it would be expected to bring greater income to operators as well as employes. What possibilities are there for sulfite pulp manufacture?

A. There is an acute newsprint shortage in the U. S. at this time. I should be glad to see sulfite pulp mills and any other kind of mills established in Alaska. My advocacy of the establishment of newsprint mills there is based on the obvious reason that new capital is more likely to be interested in an investment in an industry whose marketing problem is already solved.

Q. You are quoted as saying statehood for Alaska would advance the development of the paper industry. In what specific way would statehood have an effect on bringing paper mills to that area?

A. I believe statehood would encourage development of many other industries besides the pulp industry in Alaska. Statehood allows the residents of the area to make their own decisions on taxation, utility control,, and other matters affecting business so that those decisions can be adapted to local needs.

Average Coast Pay Now $1.58 Per Hour

A new approved wage agreement for the pulp and paper industry of the three Pacific Coast states has raised the men's base rate to $1.27½ cents per hour and for women to $1.07.

Average earnings—and these are much more important in this industry as all but 6 to 8% in the mills receive above base rate—have been raised to $1.58 per hour. Average weekly earnings are now $61.00 and average monthly earnings, $262.

In the annual negotiations held in Portland, Ore., the Pacific Coast Association of Pulp & Paper Manufacturers and the two AFL unions came to agreement on June 2 on making permanent a 10% "cost of living" increase, which employers had been voluntarily paying since January 16 and also an additional 7½ cent an hour increase across the board. It was also agreed that Christmas, Labor Day and July 4 will be paid holidays hereafter.

There were a number of other new clauses in the agreement, one being that positions requiring professional training, such as civil engineers, graduate chemists and chemical engineers are excluded from its provisions.

On June 14, the unions in the 33 mills approved the agreement by vote of their locals. When the wage conference began there was some fear that Congress would pass a labor bill forbidding industry-wide bargaining, but this threat was dissipated in the final form of the labor bill.

Pay increases for about 15,000 employes amount to $6,600,000 since May 31, 1946 and is excess of $13,200,000 since V-J Day. Average hourly earnings have increased 44 cents or 48% since V-J Day and 77½ cents or 97% since Jan. 1941. To rates on some paper machines are now $2.73½ per hour.

For many years now, pay rates on the Pacific Coast have been highest in the world in the pulp and paper industry, certainly in part due to the unusual high living costs prevailing in the Far West.

15-Cent Boost Is Pattern in South

The 1947 wage increase pattern for the large southern kraft industry was established generally at 15 cents by virtue of an increase of that amount for approximately 12,000 employes of the Southern Kraft Division of International Paper Co., including workers in eight paper mills, two box plants and one bag factory. This announcement followed the wage conferences held recently in Mobile, Ala., for all these mills, as has been the annual practice.

Shortly before the Southern Kraft conferences, four locals of the Pulp Workers and Paper Makers met with the management of the Brown Paper Mill Co. at Monroe, La., and were granted a 15-cent increase, in anticipation of the bargaining at Southern Kraft.

These increases bring the base rate for men's jobs to $1.00 in all these plants.

HISTORY OF PACIFIC COAST WAGES

The Pacific Coast wage conference was inaugurated in 1934. Raises were granted every year except 1937-40. There were three percentage raises (which some companies felt stimulated employees to seek promotions) but all the rest were on an across-the-board basis. In Decc. 1945, there was a 15% boost, in June 1946 a 4% rise and a 10% increase this year.

An interesting point shown below is that base pay had increased over 180% in the history of negotiations but average pay has risen only 165%. Average hours worked per week are now about 38.6 hours.

Following is an interesting comparison of new and past pay, both base and average:

				% Increase over 1947	
	1934-35	1937-40	June 1947	Over 1934-35	Over 1937-40
Men's Base Rate (Hour)	$ 0.45	$ 0.62½	$ 1.27½	183%	104%
Women's Base Rate (Hour)	.37	.50	1.07	189%	114%
Average Hourly Earnings	.59½	.79¾	1.58	165%	98%
Average Weekly Earnings	$20.96	$29.47	$61.00	.....	.....

Our Cover Picture — —

• shows the world-famed industry-wide Pacific Coast wage conference which is held annually in Portland, Ore. Called the "Gold Fish Bowl" negotiations because any member of management or labor, to the lowest paid laborer or beginner in a mill, is privileged to "sit in," this annual meeting between the AFL unions and the Pacific Coast Association of Manufacturers was an eight-day affair this year.

Eight days of just sitting isn't easy. For, although it is an open meeting to the least of interested parties, most of those present can only sit and listen—they can't talk. They tossed Roberts' Rules of Order out the window when they started this unique conference and devised some very special rules of their own. Their original and highly successful rules of procedure as to who can talk and when, and how decisions are made, have been perfected over the past 13 years, and have achieved for the conference a great deal of fame and aroused a great deal of curiosity in all parts of the world and in many other industries.

John Sherman, of Tacoma, vice president of the International Brotherhood of Pulp, Sulfite and Paper Mill Workers, was chairman of the labor side of the bargaining conference and J. D. Zellerbach, San Francisco, was the employers' bargaining chairman.

Sitting at the table, shown in our cover picture, are other members of the joint negotiating committee and their advisors. Most of these do not talk, unless they are called upon to give some evidence or information. In actual practice only one or two do most of the talking and negotiating for the employers but more of the union group are brought into the discussion. Over the years, Mr. Zellerbach and Mr. Sherman have worked together with an expert and nice smoothness as the co-chairmen.

If an issue arises requiring a vote the groups will caucus. Procedure is worked out to quickly get necessary decisions from each company involved.

The management negotiators and advisors are named in the caption beneath our picture. Identified with their companies, they are, left to right: Mr. Zellerbach, Crown Zellerbach Corp.; S. W. Grimes (sitting slightly back from the table), field secretary of PCAPPM; A. R. Heron, Crown Zellerbach Corp.; P. J. Onkels, Pacific Coast Paper Mills of Washington. Lawson Turcotte, Puget Sound Pulp & Timber Co.; Leo S. Burdon, Soundview Pulp Co., woman secretary and court reporter; Irving T. Rau, St. Helens Pulp & Paper Co.; R. S. Wertheimer, Longview Fibre Co.; J.W. Genuit, Fernstrom Paper Mills, Inc.; Lyall Tracy, Rayonier Incorporated; Robert E. Bundy, Fibreboard Products Inc.; R. B. Wolf, Weyerhaeuser Timber Co. (retiring to be succeeded by Howard Morgan), and H. L. Wollenberg, Longview Fibre Co.

The representatives of the two unions are Mr. Sherman (at left end of table), and (from left to right at their side of table); A. W. Hannaford, I. B. of Paper Makers, Oakland, Calif.; A. E. Brown, I. B. of Paper Makers, Port Angeles; J. D. Isaacson, Los Angeles, I. B. of Pulp, Sulfite and Paper Mill Workers; W. M. Hill; Oren Parker, I. B. of Pulp, Sulfite and Paper Mill Workers; C. J. Riekenberg; Harry Adair; W. P. Perry, L. P. Bohnstedt, M. F. Randall, R. G. Hoover, I. J. Lavier and Norman Tracey. Messrs. Hannaford, Brown, Isaacson and Parker are international delegates and the others are local representatives.

Management's gallery sits behind the management side of the table, looking toward the camera. Other labor representatives are in the gallery near the camera, behind their side of the table. Guests included President John P. Burke of the Pulp, Sulfite and Paper Mill Workers, who came from Fort Edward, N. Y., and Bert Hill of Powell, River, B. C., a vice president of the Paper Makers.

Preliminary separate sessions were held in Portland by both sides. Robert A. Watson, of Everett, Wash., presided over the management pre-conference sessions on June 1. Labor delegates represent 15,000 organized workers of California, Oregon and Washington. Management delegates represent 33 mills.

Hanny Succeeds Bankus As Operations Vice Pres.

Albert Bankus, one of the outstanding self-made executives of the pulp and paper industry, died May 31 at his San Francisco home after a six months' illness. He was 61. As vice president in charge of manufacturing for all Crown Zellerbach operations, he was known and admired from coast to coast for his warm loyalty and consideration for friends in all walks of life, for his remarkable memory and for his enthusiasm and insatiable appetite for work. He was also a company director.

Succeeding him as head of Crown Z operations and as a vice president of the corporation is Jack E. Hanny, who started in the old West Linn, Ore., mill as waterboy back in 1902 and rose to manager of that same mill in 1926. Four years later and for the ensuing 17 years, he was resident manager of Crown's biggest and most diversified mill at Camas, Wash. Thus, top reward goes to man who was in operations and en- Wash. Thus, top reward goes to a gineering work throughout his career and who is now called upon to carry through to completion one of the biggest manufacturing expansion programs in the entire industry.

Succeeding Mr. Hanny at Camas as manager is Frank Drumb, who goes back to the mill where he was assistant manager from 1927 to 1933. Later he was manager at Pacific Mills, Ocean Falls, B. C., for eight years and since then has held important posts at headquarters in San Francisco.

Many people who knew Mr. Bankus were, and still are, of the belief that he was an engineer, perhaps holding college degrees, and perhaps a chemist to boot. But what Mr. Bankus knew about engineering he had taught himself. He was always jotting down notes in his little pocketbooks as he toured through mills. The facts of his history are that he started out with a business college education and got his early experience as a bookkeeper. Industrial purchasing became his responsibility later. He had the reputation for a memory which embraced every piece of machinery and equipment in every Crown mill, but probably this was slightly exaggerated in recent years as the company's operations had grown to such vast proportions under his direction that probably no human being could have such retentive ability.

A typical comment by Mr. Bankus when routine snarled and when going was rough for his associates, "Well, now it isn't so bad as all that. Let's sit down and see if we can't work this thing out together."

Mr. Bankus was buried in Cypress Lawn cemetery at San Francisco.

Mr. Bankers' Career

Mr. Bankus, who was with Crown Z and predecessor companies over 40 years, was born on Sept. 5, 1885, at Forest City, Iowa, and when four years old moved west with his parents to a farm in Clackamas County, Ore. He graduated from a Portland, Ore., high school and a Portland business college.

He began work in 1906 as a bookkeeper for Western Transportation & Towing Co., and on May 1, 1907, went to work for Crown Columbia Pulp & Paper Co., subsequently Crown Columbia Paper Co. as bookkeeper and office manager, which in those days embraced purchasing and traffic. From 1913-1915, Mr. Bankus was engaged principally in helping to work out details of consolidation of this company and Willamette Pulp & Paper Co., which resulted in formation of the Crown Willamette Paper Co. Late in 1915 saw him as office manager of Crown Willamette at Portland, and in 1916 he came to San Francisco in general charge of purchasing for all plants, including Pacific Mills, Ltd.

From 1917 until 1921 he was resident manager at Camas and then for over a year at West Linn. The ensuing three years he was assistant resident manager of Crown Willamette Paper Co., Portland, and vice president of Western Transportation Co.

In 1926 he became assistant to the vice president of Crown Willamette Paper Company and assistant to the president of Pacific Mills, with offices in San Francisco. In 1930 he took over general supervision of production, operation, plant extensions and co-ordination of sales and production.

With no change in duties, he was, in 1936, named vice president of Crown Zellerbach Corp. and Crown Willamette Paper Co. and became, in 1941, a director of Crown Z.

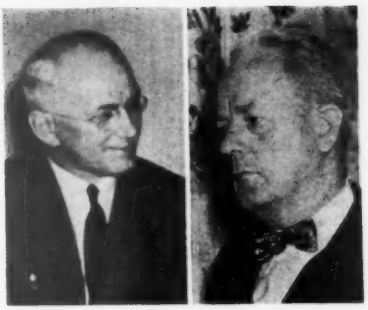
He was married to Miss Etta Shriner at Pleasant Home, Ore., on June 11, 1908. A son, Allan Howard, is attending Oregon State College. Mrs. Bankus is living at the family home, 270 San Anselmo Ave., San Francisco. Three brothers survive—John and Walter, of Portland, and Elmer of Brookings, Ore.

Mr. Hanny's Career

Vice President Hanny is known widely in the industry for many qualities, certainly not the least of these being his organizing ability and the confidence and loyalty he engendered in his staff, as demonstrated in his long management of what is called the biggest "quality paper" mill on the continent.

Starting as water boy at West Linn, he continued working at this plant intermittently while attending high school at Oregon City, and Oregon State College and Stanford University. Finishing Stanford in 1911 with honors, he went to work in the Camas mill, then the Crown Columbia Pulp & Paper Co., as draftsman and worked on construction.

In 1916 Mr. Hanny went to Pacific Mills, Ocean Falls, as one of the construction engineers and became master mechanic, paper mill superintendent, and finally general superintendent, from 1922-26. He returned to the West Linn plant as manager. Four years later, in 1930, he took over at Camas.



J. E. HANNY (left) has succeeded the late Albert Bankus as Vice President in charge of Manufacturing of Crown Zellerbach Corp., and Frank A. Drumb (right), succeeded Mr. Hanny as Resident Manager at Camas, Wash. Mr. Hanny, manager at Camas 17 years and before that, for four years at West Linn, steps into the important key spot in San Francisco as the vast expansion program for all Crown Z mills, organized and directed by Mr. Bankus, reached peak of activity. Mr. Drumb was a former Asst. Manager at Camas, a Manager at Ocean Falls and for over six years has held important posts in San Francisco.

Mr. Drum's Career

Mr. Drumb has been with the corporation since 1927.

Previous to joining the company he was in the newspaper and papermaking business in the Middle West. He entered the employ of Crown Zellerbach as assistant manager at Camas and became resident manager at Pacific Mills in 1933.

In June, 1941, he came to San Francisco to assist Mr. Bankus, vice president in charge of manufacturing. When Col. Alexander Heron, vice president in charge of labor and public relations was called to the Army in 1942, Mr. Drumb took over his duties. When Col. Heron returned, Mr. Drumb again became assistant to Mr. Bankus and was in charge of all converting operations.

Record Production Still Behind Orders

U. S. production of paper and board during the first four months of this year was at an annual rate of 21,300,000 tons, but was still behind orders, says the APPA.

Production in 1946 reached a record of 19.179,355 tons, with previous best 17,-762,365 tons in 1941.

Paul Moore on Trip

Paul Moore, president of Westfield River Paper Co., Russell, Mass., returned last month from a six weeks' trip to the Southwest and California. He was accompanied by Mrs. Moore.

THESE GENTLEMEN WERE IN PULP & PAPER Industry news this past month:

1. JAMES DESHLER, elected President and General Manager of Edgar Bros. Co., 50 Church St., New York, and Metuchen, N. J. He has been an officer and director of the company and was formerly with Johnson & Johnson and Ortho Pharmaceutical Corp.

2. GEORGE LEAR, new President of Moore & White Co., 60 year old machinery firm of Philadelphia, came out of U. S. Marines in Aug. 1946 to purchase control. Before war, he was with father in lumber business. After year of reorganization, marshaling engineers and facilities, Mr. Lear announces a program of sale, manufacture and servicing of papermaking equipment.

3. THOMAS H. LATIMER, brother of Homer Latimer of Champion, who becomes new Executive Engineer for John Waldron Corp. of New Brunswick, N. J. He was formerly with prominent paper machine manufacturers in Ohio and New England.

4. PAAVO HONKAJUURI, Manager of 150-ton Bleached Sulfite Pulp Mill of Rauma-Raahe O/Y, at Rauma, Finland, who sent word to U. S. friends of his safe return home after pleasant visit to North American industries. He attended a superintendent's meeting in Seattle during his tour. His company also operates a groundwood mill.

5. MELVIN J. KILLIAM, former Combined Locks Control Supervisor and Supt., who is now Technical Director of the Bryant Division of St. Regis Paper Co. in Kalamazoo.

6. RICHARD H. PEETERS, another ex-Combined Locks man and formerly with Kimberly-Clark, now Calender Superintendent at the St. Regis Kalamazoo mill.

Alabama Site Purchased For Newsprint Mill

Successful conclusion of negotiations with the war department for part of the Childersburg Arsenal, near Talladega, Alabama, as site of a new mill, is announced by Edward L. Norton, president of the Coosa River Newsprint Co. The company will proceed with plans for a $30,000,000 mill of 100,000 tons annual capacity, with completion in two years.

The project is sponsored in part by a Southern Newspaper Publishers Association committee of which Clarence B. Hanson, publisher of the Birmingham, Ala. News-Herald, is the chairman, and was first announced in *PULP & PAPER Industry* in April 1946. It is proposed that this mill serve the Southeast newspapers in the way the Southland paper mills of Texas serve those in that area.

The war department on June 12 signed a contract under which the company buys 615 acres of the 18,000-acre federal reservation known as the Alabama Ordnance Works, at Childersburg, where smokeless powder was made during World War II. The company also leased a number of buildings including a 25,000 kilowatt steam power plant, a water filtering and pumping station of 23,000,000 gallons per day capacity.

The lease is for five years with seven optional five year renewals, in effect giving company a 40 year lease. The company general offices will be in Birmingham.

J. E. Sirrine and Co., Greenville, S. C. are engineers for the new mill. Talledega is about 60 miles southeast of Birmingham, Ala., and 125 miles from Atlanta. The Coosa River is to be improved for traffic and would handle transport of products and materials.

Market Pulp Prices Are Being Stabilized

Domestic and Canadian pulp prices in the United States were pretty generally being stabilized during the third quarter of this year at prices which prevailed in the second quarter. Two U. S. pulp companies made definite commitments to hold their bleached sulfite prices throughout the third quarter.

Bleached sulfite was being quoted at $121-$125; unbleached, $115-$119. Swedish prices were about $40 higher and the tendency to quote "minimum" prices for Swedish pulp was continuing.

One observer with long experience said a healthy sign was the important influence that integrated mills were having in helping to bring about greater price stability and that the whole trend toward stability was a North American "movement" with the result that Scandinavian influences had less effect than they have had in the history of past restricted pulp markets.

Don Rochester on Tour

Donald M. Rochester, formerly of APPA and now field manager of American Forest Products Industries, Inc., with offices in Washington, D. C., spent May in the Pacific Northwest visiting pulp and paper and other operations in Oregon and Washington. He says the paper industry is this year supporting AFPI in a "very substantial way."

Memphis Mill Doubles Output

Expansion of facilities of FiedSul Paper Mills, Inc., Memphis, Tenn., is under way with foundations completed for doubling of capacity. The mill started operation Jan. 15, 1946, producing deadening felt from waste paper. C. R. Sullivan (on right), for many years with Lehon Co.'s sales department, is President. Chris. H. Fiedler, well known Memphis business man, is Vice Pres. and Treas. R. A. Campbell is Secretary. Supt. Hanson has been identified with paper industry many years. Principal equipment in mill includes 48" (trim 36") Pusey & Jones machine with 22 dryers of 36-in. diameter; E. D. Jones jordan; Moore & White duplex; Farrel Foundry & Machine Co., calender; and a recently acquired Nash vacuum pump. Mill is located at 1761 North Warford Road, near Wolf River, Memphis.

How Crossett Company Is Selling Entire Town to Its Employes

If you owned an entire town—lock, stock and barrel—would you sell it? If so, how would you go about the selling?

It was in 1901 that Crossett Lumber Co. selected a new sawmill site in deep forested Ashley county, Ark. No one was interested in providing services and certainly no employes contemplated investing their own money in homes where a mill figured to cut out in 20 years. As in the case of other sawmilling companies, Crossett Lumber Co. laid out a townsite and built a town, complete with store, postoffice, and rental houses for employes.

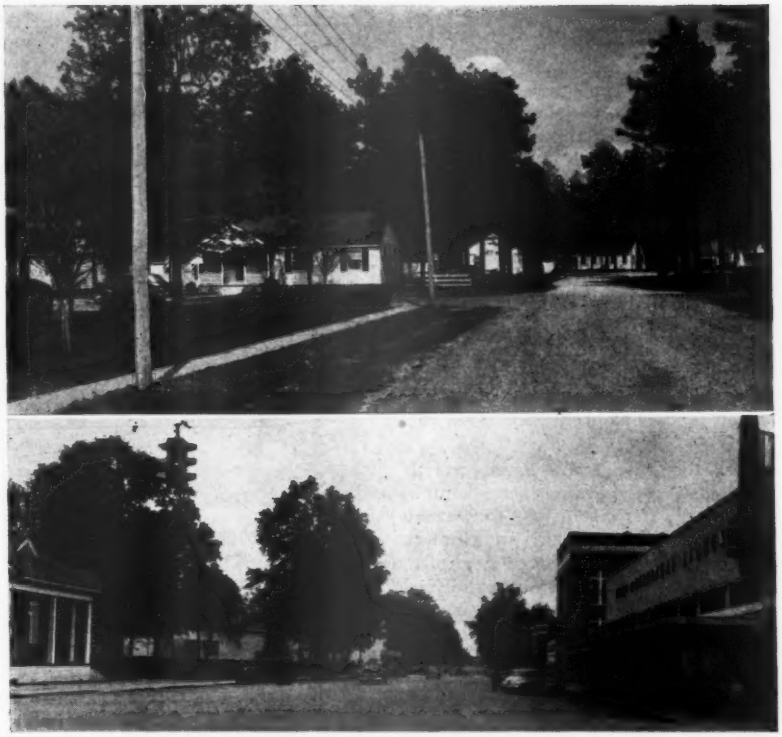
Originally C. W. Gates, part owner of a Wilmar, Ark., sawmill was buying virgin pine timber land, and old homesteaders thought he was crazy. When he had tied up as much money as he could, he looked for equally far-sighted associates and Crossett - Watzek-Gates enterprises came into being.

The company management was open-minded, and closely followed the late Henry T. Hardtner, who pioneered reforestation in Louisiana. In 1927, when the directors were on a mill visit, the jack chain was stopped so they could count growth rings on a log. Upon the visual realization that the log had expended to merchantable size within the sawmill's life the company's policy of reforestation became firmly fixed.

In 1937, with once-cut forest lands crowding back into growing trees over a large acreage, the company invested in a paper mill as an outlet for pulpwood thinnings. A chemical plant had been built in 1931 and thus the cycle of forest utilization was completed. The company began to plan modernization of its sawmill based upon indefinite extension of its operation.

The original Crossett, Arkansas, suffered growing pains. It was enlarged and improved. Then, when the paper mill was built the town was expanded. More houses were built in a 1940 addition. Post-war the Chase Bag Company came in to build a factory consuming 1000 tons of paper monthly; and the Crossett Paper Mill Division started forward with its war-deferred expansion.

While Crossett Lumber Company has considerable forest land the townsite is not blocked in, and there are as many individual land owners within a five mile radius. Crossett had grown to be a community of 6000 persons.



WHEN PAPER MILL CAME TO CROSETT, new homes were built and upper view shows the newest additions. Below, Crossett's main street. In left foreground is Crossett Industries offices and to rear, a picture show. On right side of street are modern store fronts.

The company reviewed the situation. Through a far-visioned forestry program and capital investment in industrial plants it had demonstrated that Crossett was there to stay. Properly evaluated, the erection of homes and stores by private investors outside of the townsite indicated a confidence in permanence. In May, 1946, the company directors accepted this conclusion by deciding they no longer needed to be in the town owning business.

War and post war conditions have sent prices in other towns to as much as or more than double the pre-war market level. To overcome dangers of inflation profit, the company arbitrarily cut appraisel values, the result of which was that the buyer could acquire a home for as little as 15% cash and the balance on payments over a 30-year period. The company planned there would be a clear break so the new owner receives a warranty deed with no restriction as to re-sale or occupancy.

There are no strings as to financing. The company's only policy is to sell outright. Occupants of houses are givien the first privilege of buying, but there's no pressure for sale.

For those who wish to build their own homes, there's a new subdivision with proper public utility services, with lots measuring 90 by 160 feet and costing $300 to $500. Here there are three restrictions classes as to the cost of houses which may be built in the respective zones—$10,000, $6,000 and $3,000. There's a limit of 800 square feet per house minimum. This is to protect the owner.

In response to the company's offer, 250 houses had passed title during the first six months and 35 more were being processed by FHA. Since negro occupancy houses did not fully measure up to FHA standard construction requirements for financing, they were being sold for cash with over 60 transferred during the same 180 days, and more in process. Sales are continuing daily in both white and negro sections.

BROWN COMPANY Woods Operations

How Its Wood Department is Organized . . . How Aerial Surveys Are Conducted and Their Value . . . How Records of Production Are Kept . . . Camp Standards . . . Mechanization

The scope and progressiveness of the pulpwood production methods and practices being carried on by Brown Company in northern New England and in Quebec have an interest for wood producers, no matter in what part of the forests of the world they operate.

In February, we touched upon the immediate and future expansion plans of Brown Company. Its new sulfate mill, the modernization of the other mills at Berlin and La Tuque, and indeed the whole integrated program, depend wholly upon the woods program of the company.

To the Woods Department falls the task of supplying the annual pulpwood requirements for many years to come. To the uninitiated, the everyday sight of vast stockpiles of pulpwood in and around the mill yards at Berlin is taken as a matter of course or routine.

A great deal of organization, planning, scheduling, toil, and just plain "know how" are required to keep this seemingly endless stream of pulpwood flowing in by water, rail, and truck.

The new mill is rising on much more than the granite boulders and black soil of the Androscoggin's bank. It is building on the timberlands of the whole Androscoggin drainage in Northwest Maine, Northern Vermont, New Hampshire, on the Diamond River watersheds, and the regions of the Richardson and Rangeley Lakes. These principal timber areas of the company are the assurance of cities like Berlin and towns like Gorham that their children now playing in the backyards and parks can one day find employment if they wish, and that so may their children after them. With the continued and successful operation of Brown Company as the industrial hub of a wheel at Berlin, the many spokes touch the economy and security of many towns, both large and small, over a very wide area. As an example of this, the Pulpwood Purchasing Division of the Woods Department expended on payrolls, property taxes, purchased wood, railroad and trucking ~~transportation, et cetera,~~ nearly $1,000,000 in Vermont, $2,365,000 in New Hampshire and $1,106,000 in Maine during the 1945-1946 logging season. As this is a single unit of a mighty enterprise, one is led to wonder what the total aggregate of all expenditures by Brown Company must mean economically to these same areas.

AN AIR VIEW of mixed stands of Brown Company holdings in Northern New England.

Heading up the vast woods operation in both Canada and the states is Herman G. Schanche, a vice president of the company and also the Canadian corporation, who joined the Brown organization in 1943. Mr. Schanche is a graduate of the Forestry School of Pennsylvania State. After service as an Air Corps lieutenant during the first World War, he joined the Abitibi organization in Canada. There his understanding of organization became apparent, and with his progressive ideas and introduction of modern logging methods, he became known as an innovator and champion of better working and living conditions for woods employes. The Brown Company camps of today show his hand in many ways.

Mr. Schanche is surrounded with men who know their business and to whom he gives much credit. Among these are Perley W. Churchill and Herbert R. Soderston. Mr. Churchill, who has a thorough knowledge of woods operations, is general assistant to Mr. Schanche, and has been with the Woods Department since graduating from Dartmouth in 1907. Mr. Soderston is resident woods manager for Brown Campany and chief logging engineer for both companies. He is responsible to the vice president. A Yale graduate, Mr. Soderston worked for Abitibi until 1942, was commissioned a colonel in the U. S. Army Engineers and was assigned as director of operations for the Alaska Highway. Upon the completion of the highway, he came to Brown.

Assistant resident manager and next in line is C. S. Herr. Mr. Herr, forestry graduate of Pennsylvania State and Harvard, came to Brown Company in 1943 as forestry chief after an extensive background as extension forester in New Hampshire. He was promoted to his present position in 1945. Early in the war, he served with OPA and WPB in Washington, D. C., and his knowledge of pulpwood procurement was instrumental in solving many difficult pulpwood production problems.

How It Is Organized

The pulpwood procurement program of the Woods Department, ranging far afield as it does, naturally requires the services or functions of a number of closely related divisions or sub-departments. Although these may function as independent units, they necessarily follow a coordinated plan of procedure in order to assure a smooth working organization as a whole. These direct functioning divisions of the Woods Department are namely: Operating, Forestry, Scaling, Pulpwood Purchasing, Engineering, Road Construction and Tractor Repairs, Safety and Sanitation, Trucking, Control, Job Instruction Training

ARTIST'S MAP SHOWING BROWN CO.'S mills in New Hampshire and Quebec and location of woodlands operations.

and Job Relations Training, Supply, Truck Inspection and Preventive Maintenance, and Vehicle Repair.

The Operating Division with a supervisory staff of a general logging superintendent and four district logging superintendents directs all logging operations, drives, lake towing operations and river driving, and lake improvements.

The Forestry Division's responsibilities are forestry cruises, maps, job layouts, final inspection of cuttings, stumpage purchase and sales, forest taxation, status of properties, land records, and the use and interpretation of aerial photos.

The Scaling Division is responsible for all phases of scaling, pulpwood measurements, cubic content scaling, and the keeping of records for drives, towing, and pulpwood movements.

The Pulpwood Purchasing Division, which buys between 150,000 and 200,000 cords of pulpwood annually, one half of which comes from farmers' wood lots and privately owned small timber tracts, carries on its activities over an area of approximately 15,000 square miles. A field staff of buyers and dealers buys pulpwood in practically any quantity from a cord upward, roadside or river delivery, F.O.B. cars, or delivered at the mill.

The Engineering Division handles all types of construction in connection with the woods operations. These include estimates, plans of construction, dams, bridges, buildings and structures.

The Road Construction and Tractor Repair Division deals with road construction and the maintenance of same, the operation of all mechanized equipment (except trucks) used both in road building and logging, and the repair and maintenance of that equipment in a well-equipped tractor repair shop.

The Woods Safety and Sanitation Division is supervised by a woods safety engineer, who has charge of all woods programs pertaining to first aid, sanitation, safety measures, and accident prevention throughout the operations.

The Trucking Division is responsible for the trucking of pulpwood to the mills by both company and hired trucks, and for keeping of performance records of truck deliveries.

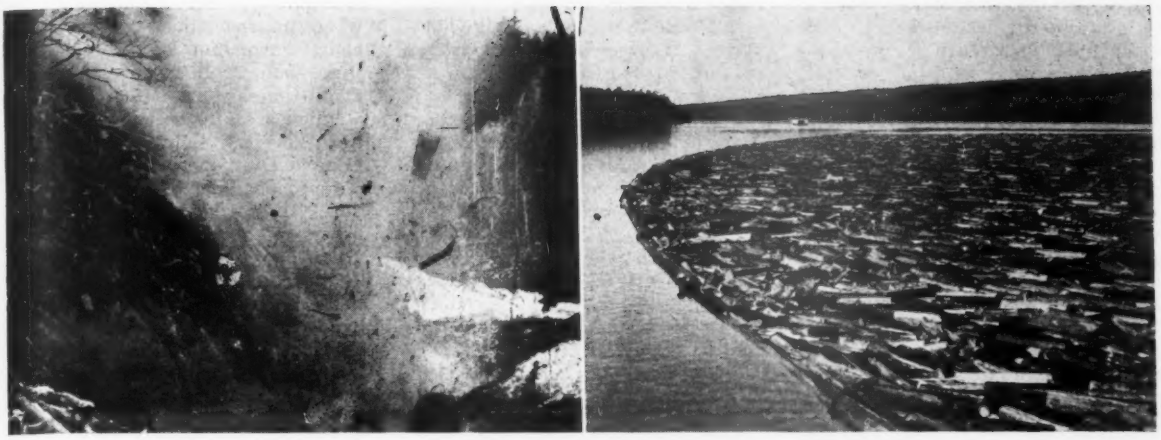
The Control Division makes up logging appraisals, schedules, analytical, stastistical, and inspection reports, and is responsible for the promotion of mechanical equipment,

VIEWS IN WOODS OPERATIONS of Brown Company:
1. A portable skidder. Tree lengths are skidded 600 feet to road through very rough terrain.
2. Tractor with special Brown sulky and winch operating over rough terrain.
3. Various types of power saws are being tried out by Brown Company under varying conditions.
4. Automatic conveyor loader loading pulpwood on trucks.
5. Automatic circular saw driven and propelled by a jeep is a Brown innovation for cutting ice. The saw is operated from the front shaft of the jeep. The rear disc wheel prevents yawing.
6. Cutting into pulpwood logs with portable circular saw and conveyor feeding directly to stock pile on road.

long term development plans, and pulpwood inventories.

The Job Instruction Training and Job Relation Training Division deals with the training of woodsmen and its effect on pulpwood production. In addition to camp training programs designed to teach inexperienced men the basics of pulpwood cutting, this division renders other services. Among these are the training of key men in the woods organization and the instruction and training of woods crews in the proper use of forest fire fighting equipment.

In the Supply Division there is a supply officer whose duties are to see that all camps are properly supplied with provisions, equipment and supplies. He maintains control of the purchase of foodstuffs as to quality in order to maintain the proper nutritional standards. He is



LEFT—During the Spring Drive in the Brown woods operations, a thrilling event is the breaking up of a log jam. Here the camera caught the scene just as the jam was broken.

RIGHT—A huge pulpwood boom on Richardson Lake, Maine. The steam tug in the distance, the A. E. Rowell, moves ahead, anchors, and then draws the boom toward it. It then moves ahead anchors again and continually repeats this process.

also responsible for field woods storehouses and their inventories.

In connection with the present fleet of pulpwood trucks and other Woods Department vehicles, there are two divisions which deal wholly with the inspection and maintenance of this equipment. These are the Preventive Maintenance and the Vehicle Repair Divisions. All Woods Department vehicles are inspected and checked periodically at the PM Station. In the Vehicle Repair and Maintenance Division, a shop is maintained where all department vehicles are repaired, overhauled and serviced.

In addition to the divisions mentioned, there are three other departments that render service to the Woods Department: (1) The Company Relations Department, (woods labor procurement and medical divisions function under it); (2) Comptroller's Department (under it the chief logging accountant is assigned to render service), and (3) Purchasing Department (under it an assistant purchasing agent is assigned as agent for the Woods Department).

The Woods Labor Procurement (employment) Division procures through the use of field labor recruiters, labor agencies, newspaper and radio advertising, all types of woods labor necessary for the operation of Brown Company's camps in Maine, New Hampshire, and Vermont.

The Medical Division furnishes the services of a doctor and a nurse, plus first aid room facilities to all woods accident cases.

The Woods Accounting Division carries out all duties pertaining to the handling of accounts, costs, budgets and audits of woods operations.

The woods purchasing agent has charge of a centralized woods storehouse and is responsible for purchases, inventories, data on prices, tote trucks and vans, and refrigerator facilities at the storehouse.

Aerial Surveys

When plans were formulated for a new sulfate mill, it was necessary for the Woods Department to know as quickly and as accurately as possible what pulpwood resources were available on a sustained yield basis. This was even more inportant and urgent when it was learned that several new species of wood such as tamarack, cedar, willow, and all species of pine, which heretofore could not be utilized in the sulfite pulp making process, were now suitable for use in the new sulfate mill. At this point a new and unusual method of estimating timberlands was introduced—that of the aerial survey. This particular field has been found so interesting that a brief description of the nature of this work might be in order here.

Aerial photos were first used in the pulp and paper industry in 1927 in Canada. West Coast timber and pulp and paper organizations began about the same time to use air photos for rough reconnaissance and public relations purposes. The vertical air photo which may be studied for detail with the naked eye, or stereoscopically for topography, is familiar to the great majority of readers. But the technique of making an actual forest inventory from aerial pictures alone is not so well known. H. E. Seely, Dominion Forest Service, Department of Mines and Resources, Ottawa, was probably the pioneer. It has been perfected in the U. S. only a short time. Only one agency has used it extensively: the Northeastern Forest Experiment Station, Philadelphia. So far as is known, the Brown Company is the only private organization which has brought the method to full use.

The designation of types is broad: softwoods, or all conifers; mixed woods, or a mixture of deciduous trees and conifers; and hardwoods. But a skilled interpreter of aerial photography, when he becomes familiar with the country, is able to break down the major types into more exact types and condition classes. It is possible to break the pictures down into sawtimber, white pine, second growth hardwood, site classes, and other classifications. There must be forestry training as a background, and some familiarity with the locality—the more the better.

For forestry purposes, scales ranging from 600 to 1,800 or 1,900 feet per inch are commonly used. The last is about the smallest that may be utilized for a direct tree count with the camera and instruments now on the market. There must be about a 60 per cent overlap along the line of flight for pictures which are to go under stereoscope study to assure complete coverage. Those who have not viewed airphotos by stereoscope have a thrill coming. Each hill and valley appears in its height as related to the surrounding terrain, and individual trees can be seen erect and casting shadows.

A common method of determining

volume by means of aerial surveys is to outline the desired forest types on the print and then follow conventional ground cruising of line of plots strip or random sampling, using the photo for control only. But the use of the photos for making a volume estimate does not resemble ground cruising to any marked extent. A plot is decided upon first. A one-fifth acre circular plot is most convenient for counting, and the circle must be converted at the same scale as that of the pictures. For example, at a scale of 1:20,000 or 1,667 feet to an inch, this circle would be approximately one sixteenth inch in diameter. At Brown Company the circle is etched on glass to be placed over the photo at the desired locations. A scale for measuring shadow heights is also employed, but this is on flexible film.

Volume tables are converted to tables based on height, rather than diameters. These are made for various types, and for each 5-foot class beginning with merchantable height and up to maximum heights. In surveys for an area of a million acres or more, an average table is made and applied to the whole tract. Such tables are not accurate for old-growth, and therefore such areas are delineated beforehand and special tables are applied to them.

When the volume tables are completed, the sampling circles and shadow scale obtained, and the shadow-conversion curves plotted, the tree crowns within the circle are counted and the average shadow length determined. The latter is converted to tree height, the given volume applied, and this is multiplied by the number of trees.

Brown uses a mosaic sheet about 20 by 24 inches, representing five minutes of latitude and longitude on the earth's surface (about 15,000 acres), but a mosaic may be produced on any desired scale. These mosaics resemble a large vertical photo and are used as an ordinary map and cannot be employed for stereoscopic study. A duoscope is used at Brown for transferring detail from the photographs to maps or mosaics at the same or different scales.

This very brief description of the extent to which Brown goes on aerial surveys may indicate how far they have developed the method. But air surveys are not depended on entirely. A constant field check is kept by competent crews, and the office computations—a part of the "timber bookkeeping"—are carefully brought into line.

How Records Are Kept

Brown woodlands are set up as to drainage areas, the boundaries being within the "heights of land" and this method is adhered to even though truck logging and mechanical logging are now conducted without regard to such boundaries. It is simpler, the Woods Department finds, to keep the records on the basis of drainage areas despite the fact that the lakes and streams are no longer the only method of pulpwood transportation. On a mosaic chart the amount of possible "cut" from photographed areas is revealed at all times.

When areas to be cut are chosen, the Forestry Division furnishes Control Division a detailed account of types, possible yield, species available, and any other information necessary to the logging of those areas.

Once the location, the volume of timber, and the road mileage are in hand, they are sent to the Control Division. The job is studied with the general logging superintendent and the district logging superintendent, and the entire pattern of the operation is set up. Such questions as to where the wood is to be landed, the quality and location of winter and summer roads, the percentage of wood to be cut at the "stump" or on "yards", are all decided here. At the same time cutting and hauling quotas by periods are established.

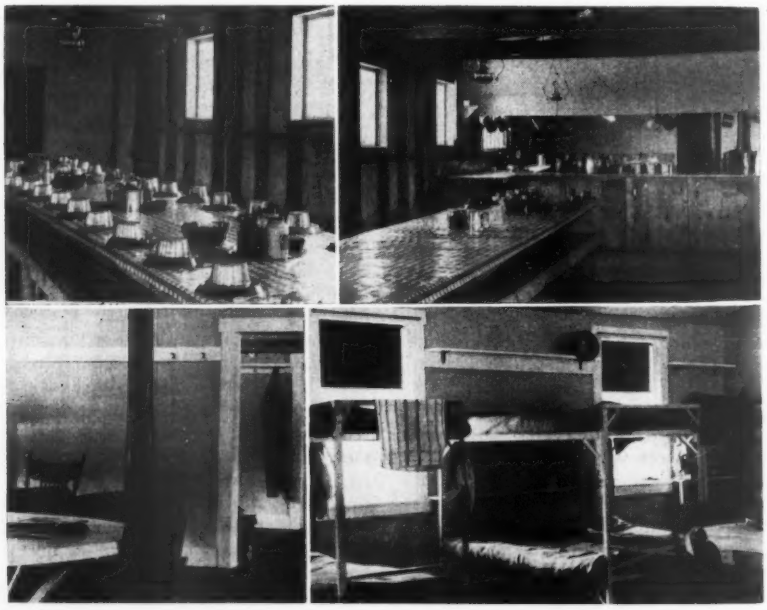
An appraisal is submitted by the Control Division—the cost of getting the wood from "stump" to delivery point, such as lake, shore, road or railway siding—and this appraisal is the basis for establishing the estimated cost of a company operation, or as a basis for arriving at a price with a contractor.

Whenever a camp is established, and the job gets under way, either a company or a contractor-operated job, a complete "Force and Production Record" is kept weekly. From these records can be told weekly just where a contractor or the company stands on the job. The same intelligent approach to securing factual data on costs and operational problems applies throughout the Brown Company woods organization.

Camp Standards

The camps which are headquarters for this vast operation are representative of the progress made in New England toward a higher standard of living for forest workers.

The three stages of development in Brown Company woods operations are definitely visible. There are what might be called the "original" type of camps of log construction, which were of the kind in use at the turn of the century, and which are no longer acceptable and have been discarded. There are earlier improved camps to which have been added shower baths, better "barroom" (bunkhouse) and cookroom facilities, all complete with adequate room, better lighting, and proper ventilation. Then there are Brown Company camps of several new types



BROWN COMPANY woods camps are clean, comfortable and attract woods workers. Above are scenes in cook house, and below, at left, is reading room and, at right, a bunk room.

which have been constructed during the past four years.

These are the grouping of smaller camps, built in separate units to house 14 to 16 men each. Arranged in a semi-circle around a central dining room, six or eight of these smaller buildings comprise a camp. With one building serving as a shower room with set tubs along one wall, another as a recreation room with card-table, radio and reading facilities, this type of camp has proved most popular with the men. Another type is the prefabricated, insulated type which may be disassembled and transported to new locations as desired. These are built in standardized floor, wall and roof sections and may be constructed to any size required. With double decker steel beds, electric lights, shower baths, radios, daily mail service, free newspapers and magazines, camps such as these are a far cry from the days of "salt pork and beans."

A further innovation in two of the more recently constructed camps has been tthe installation of flush toilets. It is expected that these will become standard equipment in all camps soon.

The periodical showing of movies, together with camp shows, which are presented under an incentive plan, are also a part of the present woods program.

All men who work in the woods for Brown Company receive free medical and hospital care in case of an accident, and are protected under the workmen's compensation laws of the states in which they work.

The permanent depot camps of the woods operations, like Brown Farm, Cupsuptic, and Beaver Pond are as modern as any twentieth century set-up for a similar purpose.

Deliveries of Wood

The deliveries of pulpwood both purchased and operated, to a mill, are at best a complicated procedure. Considerable planning and detail of work scheduling are necessary. The deciding factors in making proper deliveries are based upon a plan, organized well in advance, a plan which in order to arrive at low costs, must contain a properly timed sequence of pulpwood arrivals. These must be made to fit into the mill usage requirements and so planned that the storage facilities are not overburdened. Enough pulpwood must be delivered into storage during favorable seasons so that mill operations are not interrupted during those periods when deliveries of pulpwood are next to impossible.

HERMAN G. SCHANCHE, Vice President of both Brown Co. and Brown Corp., in Canada, who heads up vast woods operations. He is a Penn State graduate and was formerly with Abitibi.

HERBERT R. SODERSTON, who is Resident Woods Manager for Brown Company and Logging Engineer for both Brown Co. and Brown Corp. He was Director of Operations for Alaska Highway during war.

The combination of possible deliveries are multiple and complicated. Any disturbances of usage conditions, abnormal weather conditions, production delays, et cetera, mean that every source and quantity of pulpwood to be delivered must be re-examined, studied, and adjusted to fit storage facilities and usage.

Mechanization in Woods

Manpower in the woods is the chief problem to pulpwood operators in the northeastern pulpwood areas. With this problem in mind, Brown Company has developed certain phases of mechanical logging to a much higher degree than at any time during their many years of logging. Through the utilization of mechanical equipment, they have been enabled to apply the existing labor to a greater advantage.

In this connection, "slasher" saw mills with a motor driven circular saw have been standard equipment in Brown Company woods operations since 1942. The sites chosen for these mills are usually on a slope above a truck road. The reason for this is that as the logs are sawed into 4 ft. lengths, they may be sluiced to a loading platform for trucks, or as at one mill now operating on Richardson Lake, they may be sluiced by means of a long sluiceway directly into the lake. Tree length logs are cut at some distance from the mill, usually higher up on a slope. After being cut the logs are twitched or power skidded to a tractor road where they are piled. A tractor with trailing arch backs up to the pile of logs, and a cable operating from a drum winch on the tractor is looped around the butt or top ends of the logs. These ends are raised from the ground into the arch and when the hitch is made, the tractor hauls these bunched logs to the mill. A load is made up of 10 to 20 logs, depending on the size. When the logs arrive at the mill they are unhooked from the tractor and placed in position for rolling on to the conveyor or rolls for sawing into 4 ft. lengths.

Mechanization is part of the answer, but not all of it. Brown Company is approaching the problem from an additional direction—true year 'round logging. What men want today is the steady employment that means reasonable security, and if the woods can offer steady employment at good wages under decent working conditions (which means, in the woods, decent living conditions as well), it will follow that the type of personnel in the woods will remain high and the labor supply ample.

What Brown is shooting at is a year-long operation divided roughly into three seasons: January 1 to March 15—hauling; March 15 to June 1—driving; June 1 to January 1—cutting. Naturally the weather and other factors will not allow the seasons to be adjoined so nearly as this broad calendar indicates. But hiatuses can be filled in with the repair and maintenance of equipment, roads and camps.

Mechanization in the woods operations of Brown Company has been steadily manifested in the growing

(Please turn to page 69)

PULP & PAPER Industry's own "on-the-spot" report on

CHAMPION EXPANSION AT CANTON AND ITS SIGNIFICANCE

Nestled in the narrow valley of the Pigeon River, the Canton division of The Champion Paper and Fibre Company has the same air of permanency as the forest-clad Great Smoky Mountains which roll beyond it with the quiet beauty which is so much a part of western North Carolina.

This air of permanency is accurate, for the Canton mill has been there since 1907, a vital factor in the $50,000,000 Champion organization which operates mills also at Hamilton, O., and Houston, Tex. And it will be there for a long time to come, because particular attention has always been given to conserving the supply of wood by application of good forestry methods in its own timberlands and by impressing upon farmers and others from whom it purchases pulpwood the importance of sound cutting practices.

But in these days of sharp competition, a mill must be modern, too, and to this end Champion some time ago ear-marked more than $7,000,000 on construction and equipment which went into operation early this year.

In its pulp department, a complete transfer to the modern sulfate process was made (including a three-unit black liquor recovery system and a modern multi-stage bleach system), and at the manufacturing end, the new No. 11 machine will increase production nearly 50% in paper grades, while the rebuilding of a board machine, heretofore used as a dryer, will expand board production by anotther 80%. The new daily paper tonnage at Canton is now approximately 400 tons; and the anticipated daily production of board will be approximately 180 tons.

The Canton mill has been an unusually flexible mill, and was the first to successfully bleach Southern pine for conversion into high grade white papers. These cover a wide range, including business stationery paper, envelope paper, book and tablet, drawing and fine wrapping paper, as well as paperboard for file folders, guides, postcards, cups, milk bottles and other food containers.

In addition, Canton is the largest single unit in the world for the production of chestnut tanning extract; and it manufactures soda bleach and caustic soda; also, tall-oil and turpentine from the pine.

The late Peter G. Thomson of Cincinnati, a wide-awake printer who became dissatisfied with the way papers of that day were taking the then new halftone engravings, founded the Champion Coated Paper Co. on Nov. 2, 1893, and had it operating the following year on paper bought from the Sterling Paper Co. of Hamilton. By 1902, he had built his own mill, but the forests of the South intrigued him increasingly. Western North Carolina, he felt, offered an ideal location, Canton particularly. It was in the high mountains of hardwoods, hemlock and spruce, and within reasonable distance of the pine of the Piedmont and Coastal plains, and therefore offered a combination of wood that is indigenous from Canada to the Gulf: not only pine, but chestnut, poplar, oak, spruce, hemlock, beech, birch and gum.

By 1908, the Canton division was producing pulp from chestnut by the soda process and eventually was also using pine extensively and producing simultaneously soda, sulfate, sulfite and mechanical pulps. The operation is now entirely sulfate.

Paper manufacturing began in 1922. In addition to utilizing its own pulp, the Canton mill ships pulp to Hamilton.

Reuben B. Robertson, the president, who lives near Canton, has been active at the Canton division for many years. His son, Reuben B. Robertson, Jr., located at the Hamilton mill, is vice president in charge of all manufacturing. Dwight Thomson, a grandson of the founder, is vice president in charge of industrial relations. Herbert Randall is vice president in charge of engineering, and Herbert Suter, vice president in charge of sales.

At the Canton division, with which this article is primarily concerned, H. A. Helder is division manager, assisted by W. J. Damtoft, formerly with the U. S. Forest Service, who is also asistant secretary-treasurer of the corporation.

The Pulp Mill

The outlook of these men, backed by their experience through two wars and one major and several minor depressions, is reflected in the pulping and paper manufacturing departments as well as in the raw supply end. We will deal here primarily with the improvements which the Canton division has put into operation this year, but a brief survey of the entire mill will serve to indicate its importance and scope even before the present additions.

Wood is handled in the yard on a network of rails which bring it to conveyors leading to two pairs of drum barkers in series. A trip on the conveyors allows wood to miss the barkers if it has been steam peeled in the yard. The chain conveyors lead into the wood room overhead to a 10-knife Murray chipper. One operator on a platform over the chipper handles by electric buttons the chipper, the ramp, the conveyors, and the four Orville Simpson Rotex heavy duty chip screens powered by GE motors. This operator is required by the company to wear a safety-belt to prevent his falling into the chipper chute, an example of the safety measures which are policy at Canton.

Three new digesters, built by Chicago Bridge and Iron Co., have been added in the digester house, bringing the total to 15. These have a capacity of 14 cords each, averaging seven tons of stock. Addition of the new digesters required moving the older installations closer together, a tricky job of construction which was concluded with little interruption to production. Since the same design of rotary kiln is used for sulfate as for soda, the three parallel kilns already installed are in use at Canton, and a fourth one has been added to the set-up. But most interesting of all in the new sulfate layout are the Goslin-Birmingham evaporator installation, and the new 3-unit black liquor recovery system.

Recovery

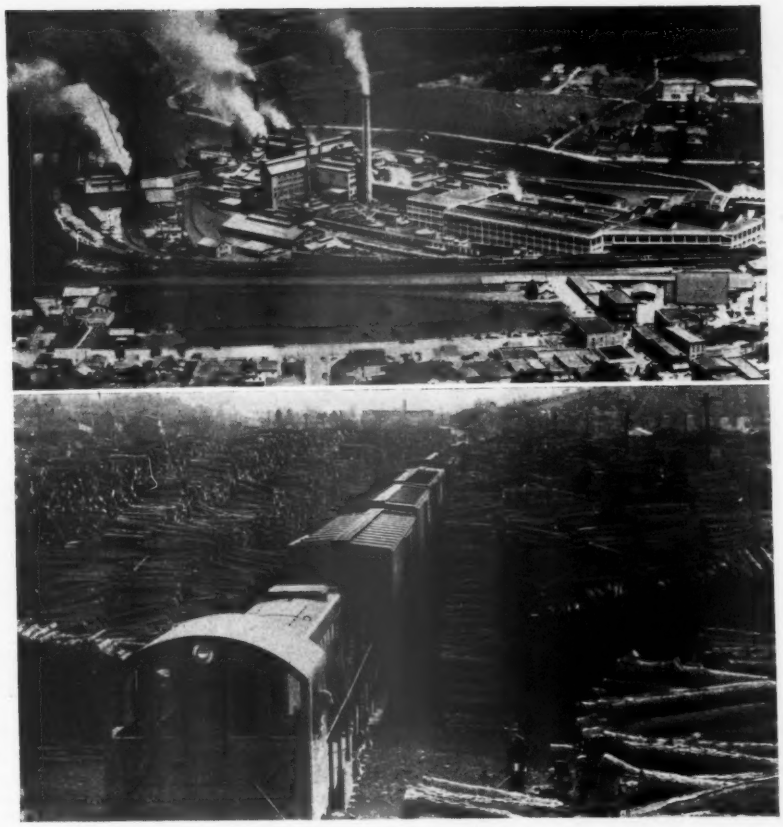
The recovery room has three spray-type recovery units. Black liquor is pumped to the recovery room from the multiple effect evaporators at 48 to 50% dry solids. Steam is developed from the recovery units at a pressure of 425 psi at the superheater outlet and a total steam temperature of 700° F.

Each of the recovery units consists of a finned-tube water-cooled

furnace, a waste heat boiler, the screenpass and superheater of which are located directly over the furnace, and a cascade evaporator. The cascade performs three functions: first, it acts as an evaporator, second, as a heat exchanger reducing the exit gas temperatures, and third, it scrubs the gas of the entrained chemical. The black liquor enters the cascade at 48 to 50 per cent solids and is concentrated to 65 per cent solids. The flue gases enter the disc at 650°F and are discharged to the induced draft fan at approximately 280° F. From the cascade the black liquor passes through the salt cake mixing tank where salt cake, either in a dry state or as glauber salts is added to and thoroughly mixed with the black liquor. From the mixing tank the black liquor passes down to the pump, thence through heaters to bring the temperature up to about 240° F for spraying into the furnace. Four sprays are used, two on each end of the furnace.

The air for combustin passes from the forced draft fan through a steam coil air heater, thence to the primary and secondary air ducts. The primary air ports are located between each tube on a level a few feet above the hearth. The secondary air ports are on a level slightly below the black liquor spray nozzles. The air is preheated to 300° F. The ash content of the black liquor dry solids is approximately 50%. The ash which has fusion temperature of approximately 1500° F is smelted and runs off the hearth through two smelt spouts into the main dissolving tank located below and to the front of the furnace. The efficiency of reducing the sodium sulfate (salt cake) to sodium sulfide is controlled by a set of dampers which control the flow of air through the primary air ports.

The first spray recovery unit installed in 1937 a Canton, is of historical importance in the field of chemical recovery, for it was the first of the modern type including the high tower water-cooled furnace with the screen pass of the waste heat boiler and the superheater located directly over the furnace and hearth. This arrangement was a great step forward, alleviating the slagging and lancing problem resulting from the burning of this fuel with a high percent of ash of low fusion temperature. Maintenance and operating costs were greatly reduced. Most important of all, the high availability of the recovery unit brought about the increased design capacity of recovery



Upper View: Air view of Champion mill at Canton:

Lower View: Diesel Engine at work on woodyard where wood is ricked to an average of 22 feet high. Normal wood inventory on yard averages 75,000 cords. Wood reaches Champion yards via trucks and by rail. This is first Diesel locomotive in western Carolinas industries; weighs 200,000 lbs., uses 120 gals. of fuel every 24 hours.

units so that at the present time sizes range up to 320 tons equivalent capacity, or more.

The capacity of this first unit was 425,000 pounds of dry solids per 24 hours. Steam production at this rating is 57,000 lbs. per hour. The total heating surface of the unit is 15,850 sq. ft. The second unit was put into operation in 1941 and the third unit in 1946. These two units were duplicates. The capacity of each one is 600,000 lbs. of dry solids per 24 hours. Steam production at this rating one each unit is 83,350 pounds/hour. Each unit contains 19,800 square feet of heating surface.

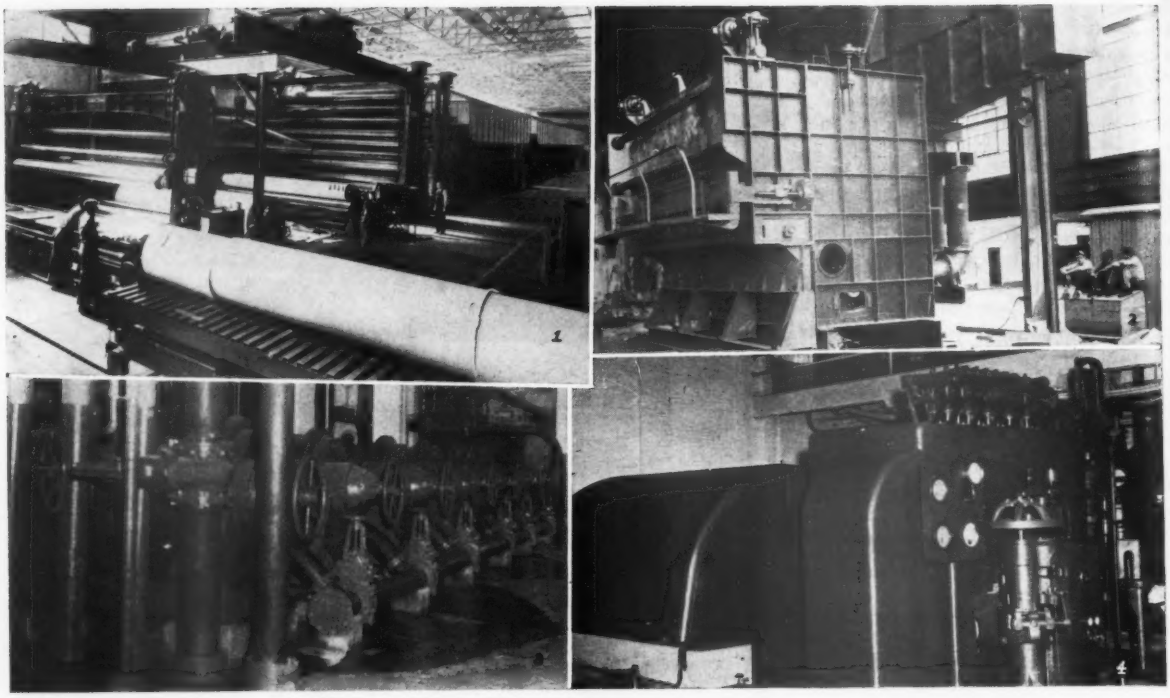
New power plant equipment in the 1947 program includes a new boiler, rated at 300,000 lbs. of steam per hour at 435 lbs. per square inch, and the No. 10 generator, a 7500 kw GE turbo-generator set placed in the line of GE generators last December.

More than 45,000,000 gallons of water are used daily from the Pigeon River, and there are two filter systems, one of which is a Roberts type rapid sand filter especially for the production of milk bottle and food container stock.

Multi-stage Bleaching

With the new production at Canton, some 500 tons daily of pine sulfate pulp may have to be bleached. The bleach department is divided into two sections; one bleaches pulp to better than 80 brightness, and the other carries the stock to a semi-bleach grade, or 60 to 70 brightness. Exact tonnages are, of course, determined by other factors in the mill, but the bleach department is ready to really roll, and can bleach up to 300 tons on either system.

The semi-bleach system consists of three stages: Chlorination, alkaline extraction and hypochlorite. In addition to the pine pulp bleaching, there is also the program for the bleaching of hardwoods. This may amount to about 150 to 200 tons, and the wood is pulped and bleached by a single stage of hypochlorite bleach. New chlorination tower



VIEWS OF THE NEW NO. 11 MACHINE, 245 inches wide and approximately 120 yards long, and auxiliary equipment serving this machine at Champion Paper & Fibre Co., Canton N. C.

1. Dry end of new machine, showing Cameron Machine Co. winder.

2. Headbox equipment for new machine.

3. Seven Jordans.

4. No. 10 Turbo-Generator pulling 9,500 k.w. making possible a maximum of 30,000 k.w. per hour load in generator room.

This new Pusey & Jones machine, one of largest in world on white paper, started up Jan. 31, running Ivory Ne'er Tear Envelope. Its highly versatile headbox, a "superintendent's delight," was described in PULP & PAPER Industry's North American Review Number this year. This article also gives a description of its versatility.

tanks and other bleach construction will be Stebbins tile lined. The washers and tar discharge equipment are Impco.

Papermaking

There are two Dilts beaters of 2900-pound capacity for semi-bleach pulp, and three Dilts beaters of 1000-pound capacity for the No. 15 machine. In addition, there are four 1500-pound beaters for the No. 13 Fourdrinier, and a like number of same capacity for the No. 14 machine. Both Fourdriniers are Pusey & Jones, 156-inch on the wire. All sixteen jordans installed before the present improvements are Black-Clawson and Shartle, except two Noble and Woods. Following the pulp dryers are two Southwark hydraulic presses.

In the board department is a 72-inch Shartle machine (No. 15) which was installed in 1910, and the No. 16, a 128-inch Black-Clawson machine which operates entirely on milk bottle stock. Black-Clawson is now rebuilding No. 17, previously used as a dryer, and this will be used also on milk bottle and food container board. It is this machine which will raise production at Canton 80% on board. Calendar stacks on the new board machine are Farrell & Birmingham, as they are on the existing No. 12 Fourdrinier and the new No 11 machine by Pusey & Jones, which is 245-inch on the wire.

Description of New No. 11 Machine

This new machine is the second of a Canton pair that are the biggest in the U. S. running white paper. It is certainly one of the most modern Fourdrinier machines in the world. Driven by GE motors through Falk direct drives, it carries a hydraulic controlled size press, and Bird doctor rolls, and is a masterpiece in direct lubrication of moving parts. The new machine sets in a modern building addition to the No. 12 machine room, and its attending equipment is in keeping with the paper machine. Stock goes from two modern Dilts Hydrapulpers to the Hydrapulp chest, and is then treated by seven E. D. Jones Majestic jordans installed for use either parallel or in series. From here the stock is pumped through Nichols Vortraps and on to the Bird screens. An interesting feature here is the stainless steel slide valve which drops stock into the header through rubber sections whose circumference may be accurately controlled. This does away with lumps.

Stock delivery to the machine which is through five screens discharging into a common trough or screen hopper, designed so the stock will flow at the same speed from the ends to a common discharge in the bottom at the centerline of the machine, then to a distributing header similar to the screen trough but entirely enclosed and turned upside down, carefully designed for steady flow of the stock.

Between the screen trough and distributing header is this new flat slide valve opening from the center in both directions. The purpose of this valve is to maintain a level in the screen hopper so there will be no cascading from the screens and entraining air regardless of the head of stock in the head box.

Leading from the distributing header to the head box are as many discharge pipes as can be conveniently arranged to deliver the stock

as evenly as possible across the machine.

Instead of the usual steel pipes and gate valves, the discharges are rubber hoses that have a device for "pinching" the flow if any regulation be desired. With this method there are no abrupt restrictions such as are encountered with the standard gate valve. At the end of these hoses are flaring adaptors connected to the head box to further spread the stock as much as possible.

The head box has one and one-half passes or three compartments with perforated baffle plates and rolls, also an adjustable baffle. The usual quick-dumping valves, manholes and handholes to facilitate cleaning and repairing are provided.

Showers are installed over each pass, to keep foam reduced to a minimum. The inside of the box is as smooth as possible, free from crevices and projections that may cause fibers to hang up and form lumps, and prevent accumulation of slime. The surfaces next to the stock are properly protected with neoprene coating.

The high slice is adjustable along the machine to insure proper relation of the slice and apron lips. The slice lip can be adjusted from vertical to an angle of 30 degrees with the wire. Also there is adjustment on the lip for leveling the sheet. The apron plate and breast roll have horizontal adjustment to insure proper setting of all parts to give the best flow of stock on the wire.

This headbox is designed by Pusey & Jones for 1300 ft. per minute but the sides could be extended to make it good for 1500 ft. per minute.

All machines are equipped with Ross hoods, and the new machine room features the Ross cold-and-warm air system throughout. Typical of further refinement in this manufacturing department are the Esterline Angus recorders. Cameron winders and rewinders are installed practically throughout.

Over 500 Vickery "doctors" supplied by Bird Machine Co. keep press rolls, wire rolls, dryers, calendars, etc., in shape at this mill.

Finishing

The finishing room with its battery of Moore & White cutters, and, for example, its Seybold "60" automatic trimmer, is the clinching embodiment of Champion's perfectionism. Here, too, one sees the Champion quality control, and the actuality of the slogan "every sheet inspected." Even in the warehouse, the final stop before the paper reaches the world, there are signs of the ultimate in paper handling—to match the ultimate in its manufacture—for here is noted such equipment as electric lift trucks, and the strapping of skid-loads with Acme Steel band.

Consumption of Materials And Production at Canton

A tabulation of the consumption of raw materials from southern sources, together with the daily production for national and world markets is interesting:

Consumption

Pulpwood	1,350 cords
Coal	720 tons
Lime	80 tons
Salt	75 tons
Other chemicals	5 carloads
Electric Power	28,500 K.W.
Steam	27,000 H.P.

Production

Chemical Pulp	580 tons
Paper	400 tons
Board	180 tons
Tannic Acid	100 tons
Caustic Soda	45 tons
Tall Oil	10 tons
Turpentine	450 gals.

Handling

More than 120 cars of freight move in and out of the plant each day, and new rail equipment includes a modern American Locomotive diesel. In addition, the company operates three steam engines and 186 cars over 25 miles of road. Two diesel cranes and four steam cranes assist in the handling of wood in the yard which ran to 80,000 cords at the time of the visit of PULP & PAPER Industry's field editor, plus wood stored outside the yard in the vicinity of Canton.

The Wood Supply

Wood supply at Canton comes largely from farmers and other timber owners, and from Champion's own timberlands, as well. There is going on at the present time an extremely interesting logging operation by Champion in the Biltmore Forest on the estate of the late George W. Vanderbilt. In the early '90s Mr. Vanderbilt purchased several thousand acres of small farms, built a huge country mansion in their center, and proceeded to landscape the countryside. He embarked upon large scale forestry practices, including extensive planting of numerous tree species, involving considerable white pine. The latter came to maturity many years ago, but no cutting was allowed for fear of damage to the park-like atmosphere of the estate which is now open to the public.

This year, however, the Vanderbilt estate chose Champion to carry on a highly selective thinning operation in Biltmore Forest. About 12,000 cords have been taken out to date and the operation is perhaps only one-fourth completed. The operation is mechanized, but great care has been taken in the logging and the clean-up. It is very difficult to tell where the Champion outfit has operated, so "tailored" and neat has the operation been, Disston power saws, and Mall saws with Poland attachment are used in felling and, in some instances, bucking. Although a few horses are used on the skidroads, the chief performer in this department is a Caterpillar tractor equipped with a Carco winch. The maneuverability of this equipment is extremely important in a careful operation of this kind.

The tractor brings the logs to a Montague unit consisting of rails, saw and conveyor, all operated by a 25 hp Wisconsin air-cooled motor. The conveyor takes pulpwood lengths directly from the saw to trucks.

Champion is continually experimenting with mechanization and gives every logical equipment a fair trial, and sometimes makes its own improvements to fit specific operations.

Production of chlorine electrolytically began in 1916 and now amounts to 40 tons daily. New Hooker cells were installed in 1938 and 54 new cells are now being added to the 144 already installed. These Type-S cells are going into a 64 by 90-foot steel and brick addition to the chlorine plant which is equipped with a 5-ton overhead Northern crane for handling cells.

The three Champion mills employ almost 7,000 men and women and produce 2,000,000 pounds of paper daily. The payroll at Canton alone is $600,000 per month. Sales offices are maintained at New York, Philadelphia, Chicago, Detroit, Cincinnati, Atlanta, St. Louis, and San Francisco. Champion also has clay operation at Sandersville, Ga., and a lime operation at Knoxville, Tenn.

New and Enlarged Dixie Plants Near Completion

A long-planned program of factory construction is being pushed to completion by Dixie Cup Co. Already Dixie Cups are now being supplied in more than twice the pre-war quantities.

The Dixie plant at Easton, Pa., is being increased approximately 25% by the addition of a new four-story wing. At Darlington, S. C., the plant is being doubled in size.

To assure availability of new machinery as needed, Dixie Cup Company recently purchased Cowdrey Machine Company, Fitchburg, Mass. This subsidiary is now the Dixie-Cowdrey Co.

NATIONAL SUPERINTENDENTS MEETING SPOTLIGHTS ENGINEERS

Over 600 In Attendance, Including 200 Mill Men

FOLLOWING a trend in the industry strongly visible since the end of the war, American pulp and paper mill superintendents put the spotlight directly on engineering at their 27th annual convention held at the Edgewater Beach Hotel, Chicago, May 22-24.

Attendance set no new record, but this was only because many a superintendent and affiliate member had to cancel at the last minute to uphold records in pulp and paper production. Registration was more than 600, and close to 200 of these were mill superintendents or men holding other executive jobs in the industry. Overflow from the famed Edgewater Beach Hotel were put up at the Congress, and at times the picturesque "Boul-Mich" was made livelier in traffic by passage back and forth of scores of superintendents and affiliates and their wives.

May 21st was set aside for a leisurely registration day climaxed by the annual affiliates' dinner. Next day the convention took a long wind-up, with President Homer H. Latimer leading a business meeting, and Raymond F. Bennett (who steps up from first vice president to succeed Mr. Latimer) presiding at a general conference. The day was pleasantly split by the annual men's luncheon. At this function the speaker was to have been Reuben Robertson, Jr., executive vice president of Champion Paper & Fibre Co., but who was detained by business. His place was taken by James M. Cleary, Chicago advertising man, who told of the growth of the Committee for Economic Development. In the afternoon another advertising counsellor, DeLoss Walker of Chicago, gave the superintendents a vigorous address on "Labor Relations."

On the same day the theme of the conference — pure technology and engineering — was foreshadowed when Fred C. Clark, consulting engineer, and Arthur Thurn, of the Hamilton division of Champion, talked on "Waste in White Water" and then opened the meeting to discussion. This solid technical session was a curtain-raiser for a Friday and Saturday packed with parallel meetings in which some of the best known and qualified men in the industry, both from mills and equipment and supply firms, took part.

RAYMOND F. BENNETT, new President of American Pulp & Paper Mill Superintendents Association. He will be in command at next spring's convention in New Orleans. Mr. Bennett is General Superintendent, Ecusta Paper Corp., Pisgah Forest, N. C.

With the retirement of Homer Latimer, director of paper manufacture at Champion's Hamilton mill, all vice presidents were moved up a notch, and Glen Sutton was unanimously elected to the fifth vice presidency. He was selected not only for his reputation in the industry and his devotion to Association activities, but because of the geographical location of his mill, Sutherland Paper Co., Kalamazoo, Mich. Election of Mr. Sutton keeps the geographical balance always apparent in the Association slate. Present officers now are: Raymond F. Bennett, Ecusta Paper Corp., Pisgah Forest, N. C., president; Ollie W. Messner, Robertson Paper Box Co., Inc., Montville, Conn., first vice president; Charles H. Reese, Nekoosa-Edwards Paper Co., Port Edwards, Wis., second vice president; James Fish, Paterson Parchment Paper Co., Bristol, Pa., third vice president; Charles E. Ackley, Crown Zellerbach Corp., Port Angeles, Wash., fourth vice president; and Mr. Sutton.

As already reported in PULP & PAPER Industry, the 1948 meeting will be at the Roosevelt Hotel, New Orleans. The dates are May 18 to 20. The board of directors has not yet looked beyond next year for a meeting site, but Charles Ackley, Far West vice president, told PULP & PAPER Industry at Chicago that when he has taken the top chair he hopes the annual meeting will shape up on the Pacific Coast.

At Chicago, Ralph W. Kumler, American Cyanamid Co., and 1946-47 chairman of the affiliates committee, announced new committee members: Paul Boronow, Valley Iron Works; Frank E. Hutton, Babcock & Wilcox; J. H. Loomis, Calco division of American Cyanamid; R. K. Prince, Allis-Chalmers; Walter B. Morehouse, Nopco; David C. Murchison, Georgia Kaolin Co.; Leon E. Smith, Downingtown Manufacturing Co.; John Matthews, Williams Cabble-Excelsior; H. F. R. Webber, Link Belt Co.; and C. D. DeMers, Taylor Instrument Co. Nominators of the new committee were Ivar Ekholm, National Aniline; S. W. Fletcher, J. O. Ross Engineering Corp., and Olney Steffens, Penick & Ford.

As president, Homer Latimer welcomed superintendents and affiliates on the second day, but it was his self-styled "swan song" at the annual banquet which was the high point of the more relaxed moments of the convention. With a delightful sense of humor and an urbanity seldom seen in professional toastmasters, Mr. Latimer, the son of a famous papermaker who taught many an old-timer at the banquet, held 600 men and women in the palm of his hand. Besides officials of the superintendents at the head tables were R. G. Macdonald, secretary-manager of TAPPI, and Douglas Jones, Canadian P&PA.

Taking important parts in the ceremony of gifts to Mr. Latimer, Mrs. Latimer, and to Mrs. Bennett for her help to her husband on the five-year road to the presidency were three old-timers whose names are written large in Association history: Bill Brydges, R. L. Eminger, and Fred Boyce.

A telegram of good wishes from the simultaneous Pacific Coast meet-

ing at Gearhart, Ore., was read by Mr. Latimer.

In Chicago, there was planning for the "international" meeting Sept. 8-12 when delegates will sail from Montreal to The Manor Richelieu at Murray Bay, Quebec. That session will be under auspices of the Canadian-New York division of the Superintendents Association, its largest division.

As always, the ladies took a prominent part in the Chicago meeting. Mrs. Latimer was unable to come, so Mrs. Raymond Bennett ably pinch-hit as chairwoman of the ladies luncheon and monitor of the bridge tournament. Ladies of the superintendents and affiliates were guests, too, at a party sponsored by the affiliates before the banquet.

Boards of Experts

On Friday, the 23rd, the convention featured eight group meetings whose titles illustrate the broad coverage. The Chemical Pulp group was chairmanned by Harold Skinner, Marathon Corp., and Bob Prince, Allis-Chalmers. This was a lively forum meeting boasting such experts as John Noble of Impco, Allan Lowe of Sandy Hill, Sven Fahlgren of Bird, Ed Tucker of Stebbins Engineering, Harry Schenk of Magnus Metals, and Douglas Robbins of his own company. The general subject, "Preparation and Treatment of Pulp After Cooking" was kicked off by George McGregor, Minnesota & Ontario Paper Co., with a paper previously published in this magazine.

The Power and Plant Engineers group was chairmanned by Harold Suhs, Sorg Paper Co., and W. W. Cronkhite, General Electric. The Tissue group was headed by Lee Bauer, Ecusta Paper Corp., and F. K. Becker of Bird Machine Co. The group on Coated Papers was led by Henry Baldwin, Consolidated Water Power & Paper Co., and Robert Van Kirk, Penick & Ford, Ltd. The chiefs at the session on Fine Papers were Charles Reese, Nekoosa-Edwards Paper Co., and Percy Tigwell, Beloit Iron Works.

Woodroom and Woods Operations came in for attention also with two men at the green table: Walter J. Brown, Brunswick Pulp and Paper Company, and C. L. Durkee, D. J. Murray Manufacturing Co. Glen Sutton and Frank Eilers, Orr Felt and Blanket Co., assisted by Harry Hadley of the Gardner-Richardson mills, led the Board group. The session on Kraft was led by Roland Wilber of Southern Paperboard Corp., Savannah, and S. M. Bratton of Pusey & Jones.

SOME OF THE "BIG SHOTS" of the Superintendents:

Top row (l. to r.): Glen Sutton, Sutherland Paper Co., Kalamazoo, new 5th Vice President; Mrs. Florence Kavanaugh, Secretary and member of Board of Directors of Supts. Assn.; Ray Barton of Michigan Paper Co. of Plainwell, and Homer Latimer, Champion Paper & Fibre Co., Past President; and Ollie Messner, Robertson Paper Box Co., First Vice President, who becomes President next year.

Lower row: Mrs. Raymond Bennett, wife of new President who headed ladies' events; on left, and Charles Ackley, Crown Zellerbach Corp., Fourth Vice President, on right. In middle is Charles H. Reese, of Nekoosa-Edwards Paper Co., Second Vice President, who is flanked by Percy Tigwell, Beloit Iron Works, on left, and F. D. Libby, Manager of Paper Mfg., Kalamazoo Vegetable Parchment Co.

Another Vice President, the Third, is Jim Fish, Paterson Paper Parchment Co.

Following the general conference on Saturday the meeting was given over to two important papers: "High Density Pulping and Pumping" by Tany Agronin of Shartle-Dilts - Black - Clawson; and "The Single Rotation Refiner" by Lyon L. Sutherland of Sutherland Refiner Corp. A panel discussion on "Stock Preparation" was led by Bob Vokes of Dilts Machine Works. His board of experts: Charles Muzzy, E. D. Jones & Sons; J. W. Natwick, Bauer Brothers; Lyon Sutherland, Sutherland Refiner; R. N. Radsch, Appleton Machine; Edward Street, Downingtown Manufacturing Co.; T. Agronin, Shartle Brothers; and L. G. Durant, Paper & Industrial Appliances.

If asked to name the three most important papermaking materials, the average superintendent would not mention water, Arthur Thurn told the meeting on White Water. Yet, he said, it is as necessary and as important as pulp. When introducing the speakers, Homer Latimer opined that 5% of fibers were being lost, "and that makes this subject plenty important."

Mr. Thurn said that water was not cheap, not as cheap as many superintendents appeared to believe. "It has a price tag, like pulp," he said. He asked the audience to consider the cost of chemicals and equipment and labor involved in making water fit for use, then to consider that water is paid for further when fibers go down the drain. "The re-use of white water wherever possible will reduce your grade costs," he said. Tips from Mr. Thurn's own experience: Investigate the use of self-cleaning showers on screens. Foam sprays appear to be insignificant users of water, but actually they consume considerable. By substituting new headbox sprays using only 0.6 gallons per minute, the mill hopes to reduce fresh water usage by upwards of many thousands of gallons per day. The extent of white water re-use depends almost entirely on the saveall, and many superintendents do not realize the full importance of this. Cylinder speed has been increased from five to 7½ rpm. with excellent results. Float valves and small reservoirs have been installed. Savealls are old and therefore watched closely, and are cleaned periodically. Lean water is not always good machine shower water—length of fiber in the water is more critical.

Mr. Thurn outlined the sewer loss summary of the No. 1 mill at Hamilton as illustrative of what a good water and conservation program can do. The program is now eight years old, and during this time no major changes have been made on savealls or on the six paper machines. The first four years 13,000 gallons of water went to the sewer for every ton of paper made. The past four

AT UPPER LEFT is board of experts in Stock Preparation Round Table at Chicago Supts. Convention: Upper row (l. to r.) J. D. Brown, Sprout-Waldron Co.; Tony Agronin, Shartle Bros.; Lyon Sutherland, Sutherland Refiner Corp., and Robert Vokes (Moderator), Dilts Machine Works. Lower row: John W. Natwick, Bauer Bros.; Edward Street, Downingtown Mfg. Co.; C. R. Crawford, Shartle Bros., and L. G.. Durant, Paper & Industrial Appliances.

Next group in top row are Bird Machine Co. representatives—Howard G. Mayshaw, Sven Fahlgren, Frank Fotheringham (who gave two talks) and Vernon L. Tipka.

At upper right, John B. Chandler, Sales Engineer for The Bristol Co., whose paper was published in May issue of PULP & PAPER Industry. Lower row (l. to r.): G. L. Snyder, Lukenweld Div. of Lukens Steel Co., spoke on "Characteristics of Jacketed Steel Dryer Roll"; Harold Suhs, Sorg Paper Co., chairman, and W. W. Cronkhite, Gen. Electric, co-chairman, power and plant engineers session; F. G. Stamm, speaking on drying; Lee M. Bauer, Ecusta Paper Corp., chairman, and F. K. Becker, Bird Machine Co., co-chairman, tissue session; Harry Hadley, Gardner-Richardson Co., invited to rostrum at paperboard session to discuss etching of rolls; Roland Wilbur, Southern Paperboard Corp., kraft chairman, and Douglas Sutherland of Sutherland Refiner Corp.

years it has been only 8,000 gallons —they spend $14,000 a year less for water than four years ago. Assuming a fiber cost of only $50 a ton, they save $36,000 a year now. The total savings, said Mr. Thurn, is $50,000.

Fred Clark, augmenting the Thurn talk, told of the white water system being installed in the new West Carrollton, Ohio, mill of American Envelope Co., and said that it takes advantage of all acceptable water developments in recent years.

At the Tissue meeting W. K. Metcalfe of J. O. Ross Engineering described "Air Scrubbers for Tissue Mills." The new equipment, Metcalfe claimed, accomplishes cleaning of air for calendar and motor cooling "better than any other method." He stated that 25% savings could be achieved, and that there are no problems of nozzle clogging, or droplets, and that the horsepower requirements are not excessive. He supported his contention with charts. The machine has a third application in white water heating, he said.

E. D. Jones Composite

Charles Vickers described the E. D. Jones Composite equipment which, he said, "gives fibers of the particular qualities needed to form almost any type of paper." Development of this conical machine with built-in motor drive dates back to 1931 when the Jones No. 1 high-speed jordan was introduced for the tissue and facial field. It now covers all types of paper. Revealing details of the machine for the first time before a trade association, Mr. Vickers said that the machine is a standard product which offers "extreme accuracy and rigidity, ease of maintenance, and the ability to produce all kinds of stock at low cost." It refines, fibrillates, or cuts papermaking fibers and will range from intensive fibrillation with a minimum of cutting to intensive cutting with almost no fiber development. To avoid misconceptions of the machine, the words "refiner" or "jordan" are not used in connection with the machine.

J. W. Hemphill, Johns-Manville, told the tissue men of new developments in the erection of Transite pipe. The latest, he said, was developed by a mill in the Kalamazoo area. Basis of the development is a lightweight flange coupling with ribs as a means of anchoring-in a sulfur base pouring-compound. The regular rubber gasket is used. As far as the Transite pipe is concerned, the ends are squared, and two or three shallow circumferencial grooves may have to be cut for the pouring compound. The method has been used for two years, Mr. Hemphill said. He stated that an effort was now being made to develop practical and relatively inexpensive Transite fittings, but that test work had not progressed sufficiently for report.

Frank F. Frothingham discussed the Bird Dirtec and its application to cleaning pulp and paper. He told how pressure drop plus the whirling motion of the stock exaggerated differences in specific gravity between dirt, foreign matter and the fibers. The advantage, he said, is that dirt has been separated according to its specific gravity. Capacity of a single auxiliary unit is 30 gallons per minute, he said, and Dirtec therefore varies from 250 to 270 gallons per minute. He stressed simplicity. In the discussion following his paper he stated that the Dirtec may be used both ahead of screens and in tailings, and would take the place of tailing screens in most instances.

John Halladay, consultant of Elkhart, Indiana, made the startling statement at the Coated Papers session that "if all printing presses were destroyed tonight 85% of the paper mills would shut down." Thus he stressed the large percentage of paper that reaches the consumer through some type of printing press,

PICTURES taken at Supts. Convention by PULP & PAPER Industry: Top (l. to r.): Henry P. Baldwin (he chairmanned coated paper session), Assistant to Vice President, Consolidated Water Power & Paper Co.; B. K. Asdell, Edgar Bros.; John F. Halladay, Consultant, O. C. Callighan, Edgar Bros.; Mrs. Glen Sutton; Glen Sutton, new 5th Vice President; Mrs. Ray Barton, wife of ex-President; Allan Hyer, Black-Clawson Co., and Joe Scheuermann, Cameron Machine Co.

Middle row (l. to r.): Bill Brydges, Bedford Pulp & Paper Co.; Mort Cooper, Westinghouse Electric Corp.; John Tuttle, Westfield River Paper Co.; Walter Glass, F. C. Huyck & Sons, who again showed excellent movies; Howard H. Street, National Vulcanized Fibre Co. and Chairman of Penn-N.J.-Delaware TAPPI section; Frank Eilers, Orr Felt & Blanket Co., co-chairman of board meeting; Russell J. LeRoux, Weyerhaeuser Timber Co., and F. W. "Stub" Johnson, Rhinelander Paper Co.

Lower row (l. to r.): Jack Loomis, Calco Div., American Cyanamid Co.; M. Huff, Gen. Mgr. and Pur. Agt., Pittston Paper Corp., Pittston, Pa.; W. M. Robertson, Champion Paper & Fibre Co., Canton, N. C.; Ward Pitkin, Oliver United; Richard Buckley, Fernstrom Paper Co.; James L. Hayes, Bemis Bag Co., and Harry F. Schenck, Magnus Metals Div., National Lead Co., Fitchburg, Mass.

and launched the subject of coatings. He believes more attention should be given to printers' problems and demands in equipping paper mills. Most important thing now, he said, is the type of coater selected. "Junior has taken over the groundwood paper field with his comic books," he said, "and Senior and Mrs. Senior have graduated from the *Blue Book* and *Black Cat* of 1920 to the slickly coated *Life, Time, Vogue* and what have you."

"What does the printer want?" asked Mr. Halladay. The answers: Brightness, color fastness, smooth surface, cushion, a degree of absorbency, and uniformity. Sometimes he wants these six properties in a wide selection of basis weights, thickness, tear, and so on. "Correct coating," said the speaker, "can reconcile some of these conflicting wants better than any other method now known."

Dr. B. K. Asdell, research chemist for Edgar Brothers, discussed the relation of coating clays dispersion to the flow properties of clay slips and coating colors. Dr. Asdell summed up five principles concerning the optimum condition for dispersing clays to maximum fluidity: 1. Complete dispersion takes place only when hydroxyl ions are present in the water surrounding clay particles; 2. Complete dispersion occurs only when the positive ion is monovalent, such as sodium; 3. With chemically pure clay it makes no difference whether the hydroxyl ion comes from strong base or a basic salt. 4. With a given clay slip the addition of a small amount of the proper alkaline salt results in a gradual increase in fluidity until a certain amount has been added; then very suddenly there is a great increase in fluidity. 5. Any commercial coating clay is likely to contain certain amounts of ions which interfere with complete dispersion. But they can be made ineffective by precipitation.

The continued demand for increased speed with less "down time" has accelerated many developments in paper machines, Fred Erbach of Beloit Iron Works told the Fine Papers group. He stressed compressed air as "a suitable power source" on some of these developments. His advice was to eliminate certain manual operations no longer safe or satsifactory at present high speeds. The answers, said he, were air clutches, air operated belt shifts, and air operated lifts. The cushioning effect of air greatly decreases vibration, he pointed out. Because air devices are rugged and simple, their maintenance cost is low. He admitted that compressed air as a source of power is expensive to produce as compared with electricity, and there are places where motors are recommended.

Bird Equipment

Mr. Frothingham of Bird Machine doubled in brass after his

morning talk by joining the Fine Papers meeting with a paper on the use of high pressure oscillation showers and steel plates with rotary screens. Endorsing the theme of the white water discussion of the previous day, he stressed that the oscillating shower is simple and that its advantage is better cleaning with one-fifth the usual amount of shower water or less. Regarding stainless steel plates, he felt they merited consideration for their aversion to corrosion and erosion and their durability as to slot size.

The most critical time in drying, according to F. G. Stamm, at this same session, is the period in which the free water has left the fibers and the hydrated water is being evaporated; the strength of the paper is determined here, he stated.

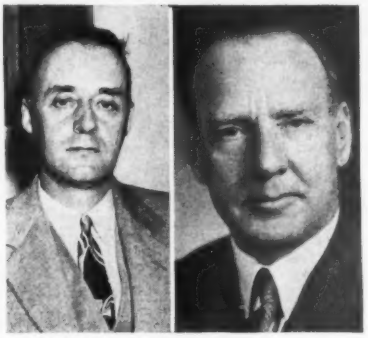
Walter Glass of F. C. Huyck & Sons showed a motion picture to the Woodroom and Woods Operation session titled "Modern Mechanization of Wood Procurement Operations" and this was augmented by J. M. McClurd and J. W. Tucker of the wood procurement division of the Brunswick Pulp and Paper Co. These Brunswick developments were previously reported and illustrated in the April 1947 issue of this magazine.

In the Kraft session Douglas Sutherland discussed the refining of brown stock before washing with Sutherland refiners, and John B. Chandler, The Bristol Co., gave a brief version of his paper "Pulp and Paper Mill Instruments" which appeared in full in the May 1947 issue of PULP & PAPER.

At the board meeting, Paul Harrison, velocity steam production engineer of Chicago, spoke on the subject of faster drying and more production, chiefly through the use of higher temperatures by means of jacketed steel rolls. He stressed the possibilities in using the high sensitive heat of the paper itself to drive out moisture. Basic, he said, is any study leading toward the highest possible steam flow. Unless a superintendent knows absolutely that he has a constant efficiency in his steam system he cannot successfully embark toward combination pneumatic and high temperature drying.

When asked in discussion whether a normal variation of from seven to ten degrees of "drop" could be improved, Mr. Harrison stated that this would depend on the individual operation, but that it was quite possible. Paper temperature is the criterion, he said, and his method of taking paper temperature was by means of a thermo strip. He stated

CANADIAN MANAGERS



Above are Resident Managers recently named for two new Canadian kraft pulp mills.

JAMES PETRIE (left) was appointed Manager of new Pulp Division of Bloedel, Stewart & Welch, Ltd., whose new kraft mill at Port Alberni, B. C., should be in operation late this summer. Mr. Petrie, born in St. Andrews, Scotland, and educated in Victoria, B. C., was with Pacific Mills, Ocean Falls, B. C., his entire career, beginning as Chemist in 1926 and working up to Assistant Manager for the past 6 yrs. His appointment was announced by President Prentice Bloedel.

R. T. STEEDMAN (right), was named Resident Manager of Marathon Paper Mills of Canada, Ltd., Marathon, Ont., as announced by President John Stevens, Jr. Mr. Steedman, educated at Glasgow University and London, wounded three times in World War I in France, also began his career as a chemist, starting with Abitibi in Iriquois Falls, Ont., in 1925 and working up to Manager at Smooth Rock Falls. From 1935 to 1946 he was with Anglo-Canadian and Anglo-Newfoundland Mills and the past year with Ontario Paper Co. He succeeds Niles Anderson.

that in the corrugated board industry he had encountered paper temperatures up to 300 degrees. On the usual paper machine, he said, it is from 210 to 270 degrees. No dryer is worth its salt without a doctor, he indicated, and he also stressed hood conditions as extremely important. Harrison showed projection slides of jacketed steel rolls on existing dryers, with indicdated improvements in drying. Such installations have not yet been carried clear to the wet end of the dryer.

Jacketed Steel Dryer Roll

Some of the characteristics of the jacketed steel dryer roll were discussed by George L. Snyder, assistant manager, development engineering, Lukens Steel Co. According to Mr. Snyder, the jacketed dryer roll guides the steam, in the restricted area between the shells, across the inner surface of the roll. He stated that the greater steam velocity reduces film and gives greater steam turbulence in the roll and flushes out air. He claimed that rolls may be made for higher steam pressures than ever before practical to give constant and uniform surface temperatures over the face.

In the discussion at the board meeting, Harry Hadley of Gardner-Richardson Co., told of a recent phenomenon at their three mills which he had encountered at other mills—the etching rolls without discernible cause. Some in the audience thought it might be due to boiler compounds, others believed that electrolysis might be involved. Several admitted the trouble, without success in correcting it. Said one man: "We just wait, and it goes away!"

Keynoting the Chemical Pulp session, George McGregor, of M & O, said: "Any special effort expended in the planning, layout, maintenance control and modernization of the washing and screening operations in the maufacture of sulfite pulp will be readily reflected in the quality and production." The board of experts mentioned earlier in this article proceeded specifically from there. It was agreed that it had been amply demonstrated that it is practical to recover, at nominal capital expense, residual SO_2—resulting in a material saving of sulfur and elimination of nuisance danger. The heat released at the blow has genuine value, too, it was pointed out, and can be made to provide hot water for pulp washing.

It was stated that in consistency regulation the use of automatic controls was hampered by a tendency of human nature to forget that a change has not been made when manual operations are absent. One member of the panel indicated that if liquors are to be recovered they should be used to cushion the blow instead of water, because use of water results in dilution which raises recovery costs. Further discussion led into the belief that it might be cheaper to clean pulp by a riffler than in the wood room, considering the relative high cost of wood room operations. It was said that in some mills centrifugal cleaners are supplanting rifflers because of speed and smaller space requirements. The question of knotting in the riffler stage was discussed and it was recommended that knots should be burned in the recovery unit—although wet knots may cut down furnace efficiency. Best solution thus far: to re-cook or refine knots.

The vibrator screen of Swedish design was discussed, since it appears to be coming into wide use in the U. S. One of the panel members pointed out that the tendency is toward shorter lines in fine scren-

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ing, length determined by dirt count.

On Saturday, preceding the closing by new President Bennett, the Stock Preparation session was held. It was pretty well agreed by all hands that the greatest difficulty in the study of stock preparation was finding out exactly what happens to the fibers in the process. "We need more accurate and scientific data," said one member of the panel, "on what happens at various stages. There are things being done to fibers which are not now being measured."

Exception was taken to the "freeness" test. The objector believed that freeness was not an indication of what has happened in fiber processing. "I suggest somebody design a test other than freeness and that we forget about the latter," was the suggestion. Another admitted that freeness had come to be a very loosely used term, and that "trying to find out exactly what we are doing is, in many ways, like shooting fish in a dark barrel." Use of the term hydration also came in for some criticism.

The question was asked as to what success Sutherland refiners had had on groundwood reject. Answer: The manufacturer is now resuming tests which were stopped during the war, and the tests had been hopeful.

The Weiner refiner manufactured by Downingtown was "the daddy" of all refiners, according to Ed Street, president of the company, who said its chief difference from others is the fact that stock enters into a large area and issues from a gradually restricted area. Improvement on this equipment, interrupted during the war, has been resumed.

One manufacturer suggested that perhaps the cart was before the horse in having the manufacturers on the platform and the superintendents in the pit.

Considerable discussion was given over to the handling of wet strength in the broke, and attention was called to fact that the kraft industry has now marked its wet strength so that it may be identified.

In the matter of preventive maintenance of stock preparation equipment, the possibility of stand-by equipment was discussed. Replacement parts have been difficult, but superintendents were told they have not always anticipated their needs far enough in advance. One mill with ten jordans schedules a weekend inspection of each machine on a definite month, and then can foresee when filling time is coming up.

What They Hope to Do

With the closing of the Stock Preparation session and the general conference the 27th annual reached its successful end. But before the assembled superintendents embarked on car, train and plane for all points of the compass, they set some plans for the rest of this year and 1948. Traditionally, the plans are in the form of a resolution which embraces many things including thanks to their retiring president, their secretary, and to the chairman of the affiliates. In broader industry phases superintendents hope to do this:

1. Increase production to meet the continued demand.
2. Exploit the use of "other species" of pulping woods.
3. Bring about a better exchange of information between makers and users of paper.
4. Increase attention to labor relations.

It is a program worthy of the men who are on the production spot in the great North American industry. If they felt any uncertainty about their abilities to follow it, there was certainly no sign on the shores of Lake Michigan late in May.

HOW CHEAP IS WATER?

By Arthur Thurn

Champion Paper & Fibre Co., Hamilton, O.

(Talk given at Superintendents' Convention, Chicago, May 21, 1947)

Is water the cheapest of papermaking raw materials? I won't admit it and I don't believe that you do. Some papermakers, however, admit it and even more. To them it is not only the cheapest, but by them the most maligned, derided, disrespected, disparaged and undervalued. If you'd ask them to name the two or three most important papermaking materials, how many answers would include water? Water is as necessary as pulp in making paper since both must be present.

Pulp, of course, has a dollar and cents value, but how many of us give a great deal of thought that water, too, has a price tag? Consider, for a moment, the high-priced equipment, the expensive chemicals and the high labor cost involved in processing water for mill use! Is not the cost higher than appears on the surface? Now consider the actuality of not only paying for that water, but it will cause you to pay again! You pay to have it processed for mill use. You add costly alum to get the proper pH. You use it on the paper machine—then you let it go to the sewer, carrying expensive fiber with it. That's why the initial cost of water isn't the only cost involved. Some say that they don't lose the fiber to the sewer, they send it to their old paper system. That is only a half-truth. Each pound of fiber is worth a great deal more when put into it's own beater furnish than it is as ledgers.

The reuse of white water wherever possible will reduce your grade costs. The use of white water on the machine showers and screens decreases the fresh water requirement. The alum usage is lowered because the correct pH is almost on hand. Then, too, the less water in the system the better the recovery of the fiber by its saveall. Therefore the substitution of fresh water with white water should be made wherever possible. We use white water exclusively in our beaters. We use white water almost 100% of the time on the machine showers, in the stuff box for dilution and on the flat screens. The Bird screens use white water to a somewhat lesser extent. Fresh water is used at these points only when the supply of white water is inadequate or excessive foam is present. Fresh water is used by our felt-washing showers, squirts and foam-sprays. Then, of course, there is the fresh water that enters the system with the use of ledgers, wet laps and slurries of alum, clay and size.

The beater is the greatest individual consumer of white water. Since it is the greatest potential conserver of water, fiber, clay and alum, our beaters never us fresh water (exclusive of start-ups).

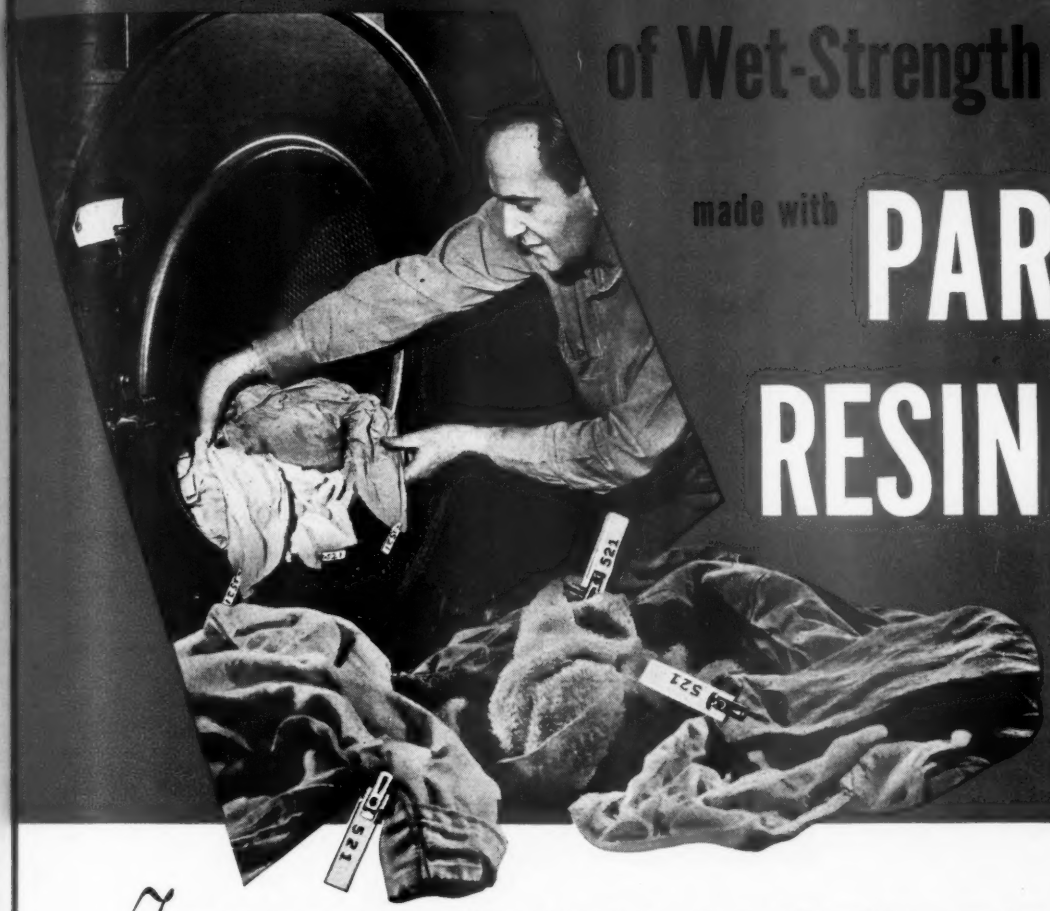
Our Bird screens have drilled showers. Seldom do they use fresh water. However, these showers are rather difficult to remove for cleaning. We are about to investigate the use of the self-cleaning shower.

Wire-cleaning showers are huge consumers of water. We use two types of wire showers. One is the self-cleaning shower with the plunger and the other is the drilled shower. The former is highly successful. The drilled shower is cleaned only periodically since the white water is kept as lean as possible in fiber content.

Foam sprays appear to be insignificant users of water but it is amazing how much water these sprays can squander. Our headbox sprays use fresh water exclusively. Each spray uses between 1.5 and 3 gallons of water per minute. We are now replacing them with sprays which use 0.6 gallons per minute. If the project is successful we hope to reduce our fresh water usage by upwards of 500,000 gallons a day.

It must be borne in mind that the extent of white water reuse depends almost entirely on the saveall. A great deal of attention must be given the saveall because the recovery of fiber and the effective use of saveall effluent has such an important bearing on grade costs. Many papermakers will not realize its full importance. Lost fiber and wasted water may not be itemized on the grade-cost statement, but, like the new suit on the travelling man with an expense account—it's there! Our savealls, which are very old are watched closely. We systematically inspect the cylinder wire for holes and deckle straps for leaks. We have increased the cylinder speed from 5 to 7½ R.P.M. with excellent results. We have installed float valves and small reservoirs on the saveall intake in order to hold a maximum amount of water in the saveall without overflowing it. When there is too much water in the paper machine system for the saveall to handle, we bleed-off the flat box pump since this is the leanest of the waters. We periodically clean the saveall and saveall lines of scale and miscellaneous dirt. We keep close check on the save-all cylinder water so that this shower

Another *NEW* for Paper... LAUNDRY TAGS of Wet-Strength Paper made with PAREZ† RESIN 607



THESE DISPOSABLE paper laundry tags have just "been through the mill" at a large commercial laundry. Though still soaking wet, they are unfrayed, firmly attached, unblurred, and easy to read. *And they cost less than conventional cloth tags.*

What enables these paper tags to do the job of cloth? The answer is simple: PAREZ Resin 607 was added during the manufacturing process. PAREZ binds the fibres together with a bond insoluble in water and most other liquids, imparting exceptional wet and dry strength, improved tensile and bursting strength, and added folding resistance.

Wet-strength papers made with PAREZ are steadily finding more markets. Already in wide use in the manufacture of absorbent papers, bag and sack papers, saturating papers, photographic papers, locker paper, twisting papers and wrappings, they are coming into the home in the form of durable wet-strength paper tablecloths and napkins . . . towels and draperies . . . dusting papers . . . in fact, wherever you want papers to remain strong and difficult to tear even when soaking wet. If your business is paper, paper products, or packaging, it will pay you to consult our technical service representatives. They'll be glad to work with you in improving your present products or devising new ones.

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†Trade-mark of American Cyanamid Company covering its synthetic resins for use by the paper industry. The processes under which PAREZ is applied in the production of wet-strength paper are covered by U. S. Patents Nos. 2,291,079, 2,291,080 and 2,345,543 and U. S. Patent Application Serial No. 453,032

water is as lean as possible. We want to put as much fiber as we can back into the machine system.

Lean water isn't always good machine shower water. The length of the fiber in the water is more critical. One of our machines uses shower water containing over 5 lbs. of fiber per 1000 gallons. On another machine we recently had trouble, because of the showers plugging, with shower water having only 1 lb. of fibre per 1000 gallons. A quantitative analysis of each effluent is very interesting. The shower water containing over 5 lbs. of fiber was screened. No fiber was retained by a 60-mesh screen and only 5% on the 150-mesh screen. The water containing 1 lb. of fiber was likewise screened. 2½% of the fiber was retained on a 20-mesh screen; 6% on a 35-mesh screen, and 15% on a 150-mesh screen. This rather explodes the theory that one can peer through a bottle of saveall effluent and conclude whether or not the water is satisfactory for use as shower water.

Hamilton Mill Report

A sewer loss summary of our No. 1 mill at Hamilton, Ohio, is indicative of what a good water and fiber conservation program can do. The program began in earnest 8 years ago. During this time no major changes have been made on the 25-year-old savealls (or on any of the six paper machines) in spite of increased paper machine speeds and production. During the last 4 years we sent to the sewer 8000 gallons of water for every ton of paper made. The 4 years previous it was 13,000 gallons. We are spending $14,000 per year less for water now than we did 4 years ago. During the last 4 years we sent to the sewer the fiber equivalent of 0.70% of the machine production. The 4 years previous it was twice as much. Assuming a fiber cost of only $50.00 a ton, we save $36,000 a year now as compared with the 4 previous years. The total saving is $50,000 a year.

There are other savings which are apparent but on which figures are not available. The reuse of white water indeed saves alum, filler and dyestuff. We collect a large portion of heat-exchange water and force it back into the main header.

Believe it or not, we have machine bosses who actually prefer white water to fresh water and only use fresh water as a last resort. Their cooperation in the water and fiber conservation program is excellent. Our program is going ahead and we expect still further savings and still less waste.

Fresh water can be likened to a silver cloud with a dark lining. It's an excellent and wonderful material without which paper cannot be made. But, when used wastefully, the dark lining appears and dollars run down the sewer. As for those who admit that water is the cheapest of papermaking materials, they should bear in mind that because it can result in such large savings, fresh water should be used sparingly and white water judiciously and patiently.

Mahler Reelected Director of Allis-Chalmers

Ernst Mahler, executive vice president of Kimberly-Clark Corp., was reelected a director of Allis-Chalmers Mfg. Co. in May at the annual meeting. Reelected president for 6th term was Walter Geist.

E. C. JACOBI (left) of Green Bay, Wis., Midwest representative of Sandy Hill Iron & Brass Works, and NILS KLYKKEN (right), who has come to this country from Sweden, will handle sale and engineering of Kamyr equipment for pulp mills, bleach plants, etc., in all parts of the United States except on the Pacific Coast where HALVAR LUNDBERG continues as representative.

The Sandy Hill organization announced that it made arrangements through Paper Machinery, Ltd., Montreal, and the Kamyr organization in Scandinavia to bring Mr. Klykken to this country and to have Mr. Jacobi represent the line. Mr. Klykken, graduate of Univ. of Technology, Trondheim, Norway, has been with Kamyr 12 years.

HOWARD SHAFER GARDNER (left), Central Research and Technical Division, Fibreboard Products, Inc. Headquarters will be at Antioch, Calif. Native of Brooklyn, Mr. Gardner is graduate of M.I.T., and was Chairman of Department of Chem. Engineering, University of Rochester. Prior to this, he had been chemical engineer with Eastman Kodak Co., and other industrial organizations.

JOHN KIRBY (right), General Chairman next Sept. 19 Hi-Jinks, at Riviera Country Club, Los Angeles, annual event of Paper Mill Men's Club of Southern California.

GENTLEMEN AT LEFT are well known in South.

RICHARD U. TEMPLE (left) Rutger's graduate '26, is new Sales Engineer for The Moore & White Co., Philadelphia papermaking machinery manufacturers, as announced by Geo. A. Lear, President. Mr. Temple lives at Whitford, Pa., was former Ruberoid paper mill supt. ALLEN W. BETZ (right), heads new Industrial Sales Dept., Gulf Engineering Co., New Orleans. From Tulane, '37, Mr. Betz has been with Gulf many years. Other offices are in Savannah and Houston, Tex., serving paper industry.

Michigan Mills Okay New Pilot Plant

Representatives of the National Council for Stream Improvement and of Michigan paper mills and Michigan research institutions met in Lansing, Mich., with the state Stream Control Commission recently to discuss further plans for continuing pollution abatement activities relating to the Kalamazoo River. Reports were made on the laboratory and field studies carried on during the last two years by the University of Michigan, Mellon Institute and Kalamazoo College. Construction of a large scale pilot treatment plant was approved.

International Paper Co. Plans Are Revealed

Howard J. Cullen, chairman of International Paper Co., tola his stockholders the company has decided against construction of new mills.

"Construction costs today," he added, "are more than double what they were before the war. We do not feel that over a long period of years we would be able to earn a satisfactory return on any investment in a new mill at such costs."

Mr. Cullen told stockholders it seemed extremely unlikely to the management that demand, or the present price level for the company's products, "will remain indefinitely at today's levels." The company is concentrating, he said, in bringing existing plants up to the highest degree of efficiency.

International Paper Co.'s earnings in the first quarter of 1947 were the highest in the company's history.

Net was $11,660,540 or $3.21 a share on the common stock compared with $4,241,512 in the like 1946 quarter.

Weber of Fibreboard Analyzes Pulp Picture

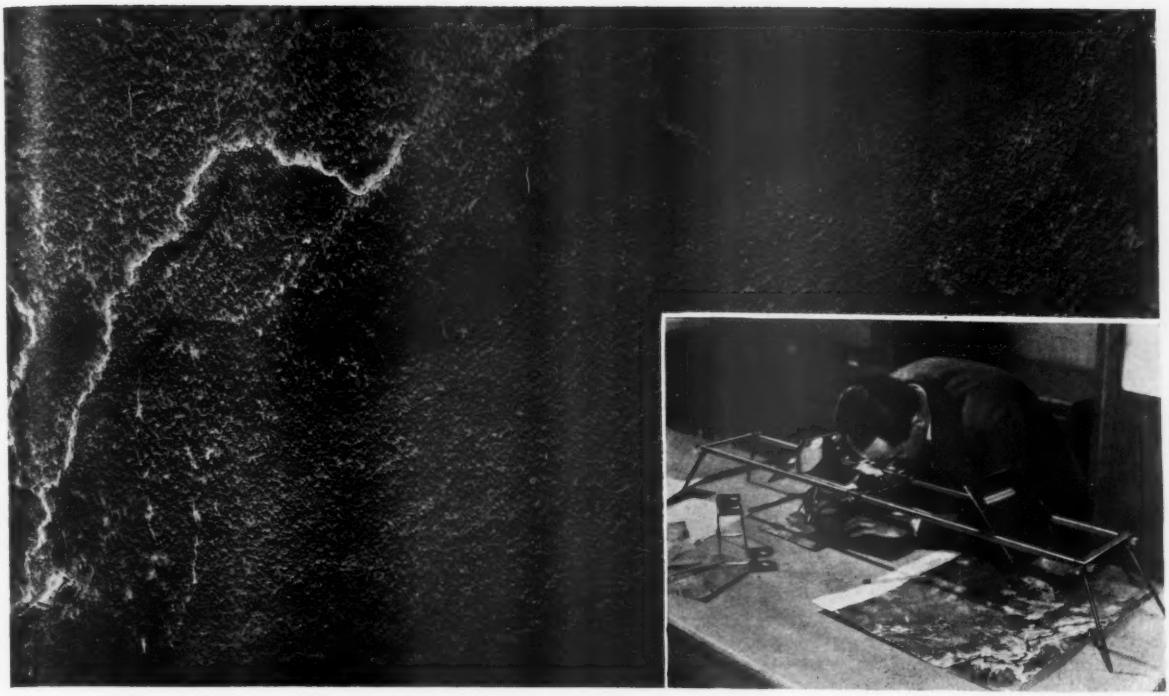
The market pulp picture for all of 1947 is "bad" but "a lot of new pulp production coming in late this year and next should ease the situation in 1948," H. Lee Weber, purchasing agent of Fibreboard Products, Inc., San Francisco, told the recent National Purchasing Agents convention in New York.

"The market pulp situation is worse than last year with inventories down to less than two months' supply, going lower, and not too much prospect of improvment," said Mr. Weber.

"Pulp and paper mills depending on market pulp would like three million tons this year. They must have 2.7 million tons but it doesn't look like they will get 2.5 million tons.

"Sweden again is the problem. One year ago we had estimates on 1946 imports from Sweden running from 400,000 to 850,000 tons. We fot about 445,000 tons.

"This year the experts are talking 400,000 to 650,000 tons. If the lower figure, these mills will get about 2.2 million tons."



YOU CAN SEE THE FOREST FOR THE TREES!

Ever look down on aerial photos through a stereoscope? It's quite a thrill . . . almost like flying. Each hill and housetop stands out sharp and clear below you. Every *tree* top, too. With practice, you can count the trees, classify them, and estimate timber holdings over wide areas with astonishing accuracy.

This is called aerial surveying—and because it's so much quicker and more efficient than the old method of "ground sampling", Brown Company adopted it at once—the first private organization to do so.

From tree seedlings to finished products, Brown Company experts are on the watch for new methods, better ways of doing things. That's one reason why Brown's "4 cornerstone pulp products" have won and held steady leadership.

"Four Cornerstones of the PAPER INDUSTRY"

SOLKA*
The purest form wood cellulose, combining strength, durability, permanence.

CELLATE*
A white kraft fibre of kraft strength produced in purest white.

DUR-ALBA*
A short fibred bulky pulp that is excellent for shading purposes.

BURGESS STANDARD*
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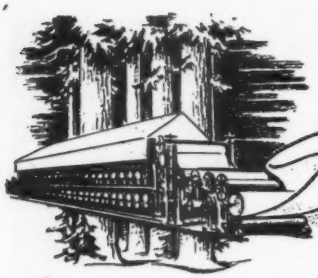


PACIFIC TAPPI-SUPTS.

JOINT ANNUAL SPRING MEETING

Hears about Employe Testing and Rating; New developments in South; Use of alloys in Pulp Mills, and Papermaking gadgets.

CLIMAXING a spring tour of TAPPI sections from coast to coast, and just before he left for a tour of Northern Europe, that organization's president, Worthen E. Brawn, was principal honor guest of the Joint Annual Spring Meeting of the Superintendents' Association and TAPPI at Gearhart, Ore., May 22-24, and here are a few things he did in a flying five-day visit to the Pacific Coast:

1. Announced plans for five TAPPI Fall Meetings this year. A Plastics Fall Meeting at Syracuse, N. Y., is planned in addition to four previously announced in this magazine; Kraft Industry (with Superintendents) at Asheville, N. C., Oct. 9-11; Engineers at Philadelphia, Nov. 3-5; Fundamental Research at Appleton, Wis., Sept. 3-5, and Fibrous Materials, East Alton, Ill., in October.

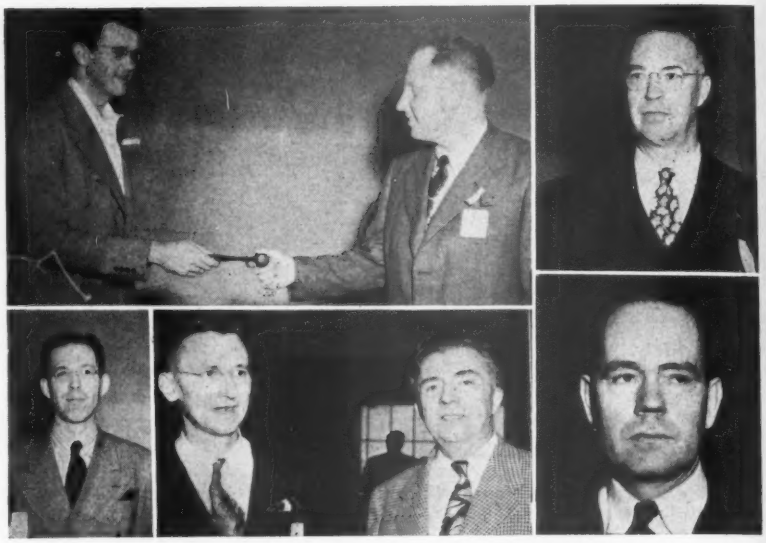
2. Told how TAPPI has grown from 201 members in 1915 to 2800, adding 800 since 1943, and is spending a budgeted $110,000 this year, including more than $60,000 for its printing bill.

3. Presented the Shibley Award for 1946-47, to Conrad E. Dyar chemist, Rayonier Incorporated, Port Angeles, Wash., for what was adjudged the best technical paper by a young person active in the Coast industry, presented at a meeting of the TAPPI Coast section (paper to be published in next issue).

4. Visited a few of the big modern mills of the Pacific Coast; saw hydraulic log barking and whole log chipping and other operations.

5. Saw what is believed to be the largest Douglas Fir standing, just 12 miles south of the convention site, Gearhart, on the Oregon Coast. This tree—15½ feet in diameter, breast high, 110 feet high to its first limb and 210 feet high to a broken top—is on Crown Zellerbach land which will be made into a public park.

6. Went deep sea fishing in a sports power yacht at Depoe Bay, Ore., but the famous fighting salmon of the west were not around that day, or, at least, not biting. Of several large cod and sea bass caught one was landed by New Englander Brawn. He wrote later: "I think we are going to start an entirely new sport in the East — trolling for codfish. Even the oldest of our fisher folk on the Maine Coast had never heard of such a thing."



AT GEARHART CONVENTION:

Top (left to right): Dr. Joseph L. McCarthy, Dept. of Chem. and Chem. Eng., University of Washington, receiving gavel as new Chairman of Coast TAPPI from predecessor, George H. Gallaway, Acting Manager, Crown Zellerbach Corp., Lebanon, Ore., and National TAPPI President Worthen E. Brawn of Brunswick, Me.

Lower row (l. to r.): Harold Wall, Chief Chemist, Longview Fibre Co., who was elected new Vice Chairman of Coast TAPPI; Svarre E. Hazelquist, Tech. Director, Longview mill, Weyerhaeuser Timber Co., General Convention Chairman and Toastmaster at Joint Luncheon; Charles F. Walker, President, Northwest School of Commerce, Portland, who made inspirational talk, and Gerald F. Alcorn, Kraft Mill Supt., Weyerhaeuser Timber Co., who told of mill visits in South. He is Chairman of Supts. Coast Division.

Meeting Is Success

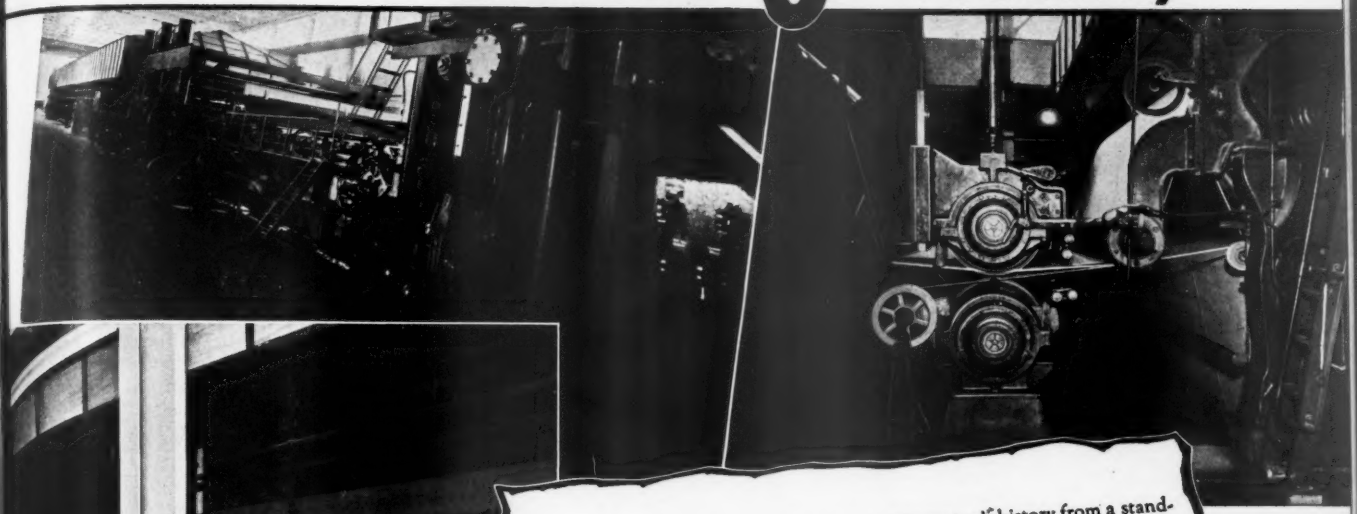
About 315 — not quite as many as last year — attended the Gearhart conclave and the hottest May days in many years made them all happy to be on the ocean. Both the Superintendents and TAPPI groups contributed to interesting pulp and paper round table discussions and personnel executives from the mills presented an unusual discussion of industrial practices, including testing and rating of employes.

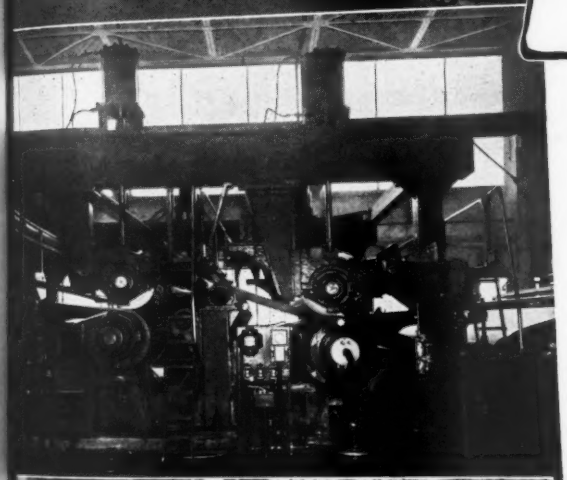
The Coast TAPPI Section elected new officers: Dr. J. L. McCarthy, University of Washington, was elected chairman; Harold C. Wall, Longview Fibre Co., was chosen vice chairman; R. M. True, General Dyestuff Corp., was re-elected secretary-treasurer, and Milton J. Maguire, Hercules Powder Co., was re-elected executive committeeman. George H. Gallaway, Crown Zellerbach Corp., retiring chairman, contiues on the executive committee with the above group.

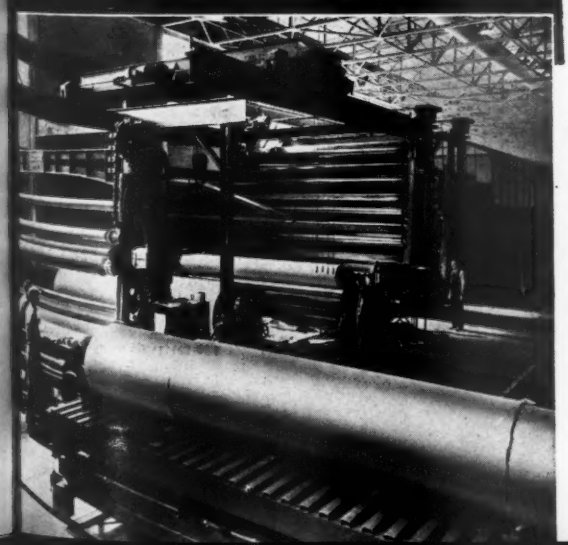
Svarre E. Hazelquist, Weyerhaeuser Timber Co., headed up a hard-working convention committee—Mr. Gallaway, Mr. Maguire, Mr. True, J. M. Fulton, Ray Smythe, F. R. Armbruster, W. C. Marshall, G. F. Alcorn, Gus Ostenson, E. N. Wennberg, H. R. Russell, A. G. Natwick, Carl Fahlstrom, and Otto Sangder.

The winning Shibley Award paper—"Standard Reference Samples in the Pulp and Paper Mill Labora-

PAPER · · · America's 6th Industry







With a start-up which excelled anything in Champion's history from a standpoint of smoothness and efficiency, the world's largest white papermaking machine rolled into solid production in the Canton plant January 31, at 10:45 P. M.

Even Division Manager H. A. Helder was startled by the smoothness with which the new No. 11 machine swung into action. Not only was Mr. Helder surprised with the original operations, but plant superintendents, foremen, machine men and contractors, alike, were virtually overwhelmed with the success of the "first start-up".

Excerpt from "The Log", published by Champion Paper & Fibre Company, March 1947.

FIRST POST-WAR MACHINE

The Pusey and Jones Corporation is proud of the performance of their "world's largest white papermaking machine" designed and built for the Champion Paper & Fibre Company. It is the first Puseyjones machine constructed and installed since V-J Day.

Due to its size many problems were encountered in obtaining material and component parts. Other machines are following in rapid order that will help relieve the tremendous demand for all kinds of paper and board products.

The Puseyjones Organization is now devoting itself completely to the design and construction of Paper-Making Machinery built to new high standards of speed and efficiency, and to the modernization of existing machines.

Puseyjones Engineers will welcome the opportunity to work with you in solving production problems.

THE PUSEY AND JONES CORPORATION

Established 1848. Builders of Paper-Making Machinery

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THE SIGN OF TRADE MARK SUPERIOR QUALITY

FOUR YOUNG MEN WHO CONTESTED FOR 1946-1947 SHIBLEY AWARD are shown in top picture, with winner at left. They are (left to right): Conrad E. Dyar, Rayonier Incorporated, Port Angeles, whose paper "Standard Reference Samples is Pulp and Paper Industry" was adjudged winner to be published in next issue); Paul E. Barr, Rayonier Incorporated, Hoquiam (his paper "Experiences With Soldium Aluminate in Papermaking" on page 54, our March 1947 issue); Henry E. Becker, Soundview Pulp Co. (his paper "Determination of Beta and Gamma Cellulose" on page 54, Jan. 1947 issue), and H. R. Cloffelter, Crown Zellerbach Corp., West Linn, Ore. (his paper "Recovery of Fibre by Flotation" to be published later).

Below, ladies who handled registration (l. to r.): Irene C. Lalane, chemist, Hercules Powder Co.; Rachel Ellis, secretary to Chief Engineer H. H. Richmond of Electric Steel Foundry Co., and Eva M. Erickson, Secretary to Milton Maguire, Manager, Hercules Powder Co., Portland.

tory," by Mr. Dyar—led off the first day's program but, of course, it was not known until the following night that it became the winner of the contest over three other papers given at previous TAPPI meetings. Mr. Dyar graduated from the University of Washington in 1933 and has been with Rayonier since 1935.

Mr. Gallaway announced that the Coast Section has prepared new written rules for the prize named in honor of the late Kenneth "Cap" Shibley, former prominent chemical engineer, who believed older men in the industry should encourage younger men to think for themselves. Any young person active in some phase of the industry is eligible, Mr. Gallaway said, and the Coast executive committee determines eligibility in individual cases. He said a committee of three judges, headed by Raymond S. Hatch, research director, Weyerhaeuser Timber Co.'s Pulp Division, judged papers on these grounds and in this order of importance:

1. Planning and preparation.
2. Organization of paper.
3. Presentation.

Report on the South

At this first session, Gerald F. Alcorn, superintendent of the new sulfate pulp mill of Weyerhaeuser Timber Co., now rising at Longview, Wash., and Coast chairman of the Superintendents, reported on highlights of a recent tour of 17 sulfate mills in Southern United States and praised highly the hospitality shown him by Southern hosts.

Southern mills had so much wood in storage they were cutting down on incoming wood to avoid rot, he sail. Most of them, he said, own timber sufficient for 40 to 60 per cent of sustained yield needs but were buying most of their wood.

In most mills, plant additions or the replacement of obsolete equipment are underway. About 20 per cent increase in capacity will occur as a result of these additions, he said.

He observed that most of the companies were going to multi-knife chipping and reporting improved chip quality as a result. His statement that one mill had discontinued screening of chips as a result of improved quality recalled the statement to this effect made at a Southern meeting over a year ago by a Brown Paper Mill Co. official and reported in this magazine.

Considerable wood cleaning in addition to drum barking is being done at Brunswick Pulp & Paper Co., Mr. Alcorn said.

Digesters in the South, he said, vary in size from 1300 to 4500 cu. ft., and the Brown Paper Mill claimed it got better quality with the small, tumbling type of digester.

The mills producing bleached pulps had found advantages in indirect heating, in some cases, and some mills had discarded heat exchangers, using the blow steam condensate direct from washing and liquor making.

In washing of black liquor, he found the most favored system to be three washers in series with single extraction on each cylinder. Lowest chemical loss of of the mills he visited was 17 lbs. per ton Na_2SO_4 in a mill using three 8x12 washers in series with 200 tons of stock handled. Losses under 50 lbs. were considered good in most mills. Mills were getting away from use of diffusers excepting one mill, which intended to retain them.

He noted several installations of Bird Jonsson knotters ahead of washers which were satisfactory operations and said Brunswick Pulp & Paper Co.'s foam breaker system, written up recently in PULP & PAPER Industry, was considered excellent. An installation of screw presses was seen at one mill.

Only mills making bleached pulp were using flat screens, but with shorter lines than in the sulfite mills of the North. Champion Paper & Fibre Co. pump knots back to digesters after tailing them from flat screen knotters, a practice which a number of Southern mills may follow since their operators have seen the Champion installation.

Mr. Alcorn echoed the laudatory remarks which were previously made by other discerning visitors to the South who have highly

FOUR PHASE SLIME CONTROL

Experience has shown that no one chemical will eliminate slime in all paper mills. Research indicates there are four distinct causes of slime formation.

Our proven, mill-tested, products effectively eliminate these four sources of slime.

A new brochure, "Slime Control in Paper Mills," describes the latest developments in this field and shows how easily, effectively and economically Four Phase Slime Control can be applied in your mill. Our Technical Staff is at your service.

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praised the high density stock storage system at Hollingsworth & Whitney's modern mill in Mobile, Ala., where there is a belt conveyor for distribution to three tanks, making possible some degree of blending. He said one of the simplest design high density stock storage systems is at Union Bag & Paper Corp., Savannah, where a conventional blow tank system is used. Stock drops from washer takeoff into a tank at 20% density. Discharge at low consistency and control is the same as that in general use on blow tanks.

Most mills he said were going to stainless steel tubes in last effects of their evaporators, although one mill claimed that decreased corrosion by soap skimming had solved the problem for them. A variety of modern and home-made recovery units are found in the South, he said.

A new liquor system, not yet installed, was being discussed in the South, said Mr. Alcorn, which would centrifuge the lime sludge out of white liquor. A number of new lime kilns were under construction. The long kiln, around 300 feet, was widely favored, such as the Crossett mill's kiln photographed for PULP & PAPER Industry recently. Lime useage as low as 20 lbs. per ton was reported by Southland Paper Mills in Texas where an AAF Rotoclone was installed.

Mr. Alcorn reported one of the "best-looking" bleach plants he has seen anywhere was the one at Gaylord Container Corp., at Bogalusa, La. Built in 1940, it has 7-8x10 washers and 9 low density continuous cells. Washers and cells are arranged in two parallel rows with a balcony overlooking the washers on which is located the control panels.

Continuous systems were favored over batch systems for chlorination, he said. Two installations of Venturi meters were seen on stock to the chlorinator. Both were in vertical lines and both equipped with water purges at the throat taps. Purge water was measured by twin Rotameters. Duplicate quantities of water to each tap was considered important. Both installations controlled chlorine to the continuous chlorination tower and were equipped with Bristol instrument controls.

"The process of high grading products to meet increasing competition can be seen taking place in the South as it is in the North," said Mr. Alcorn.

Joint Luncheon

Svarre Hazelquist, the convention chairman, was master of ceremonies at the joint luncheon and the principal speaker, Charles F. Walker, president of Northwest School of Commerce, Portland, Ore., suggested a 7-point system for success:

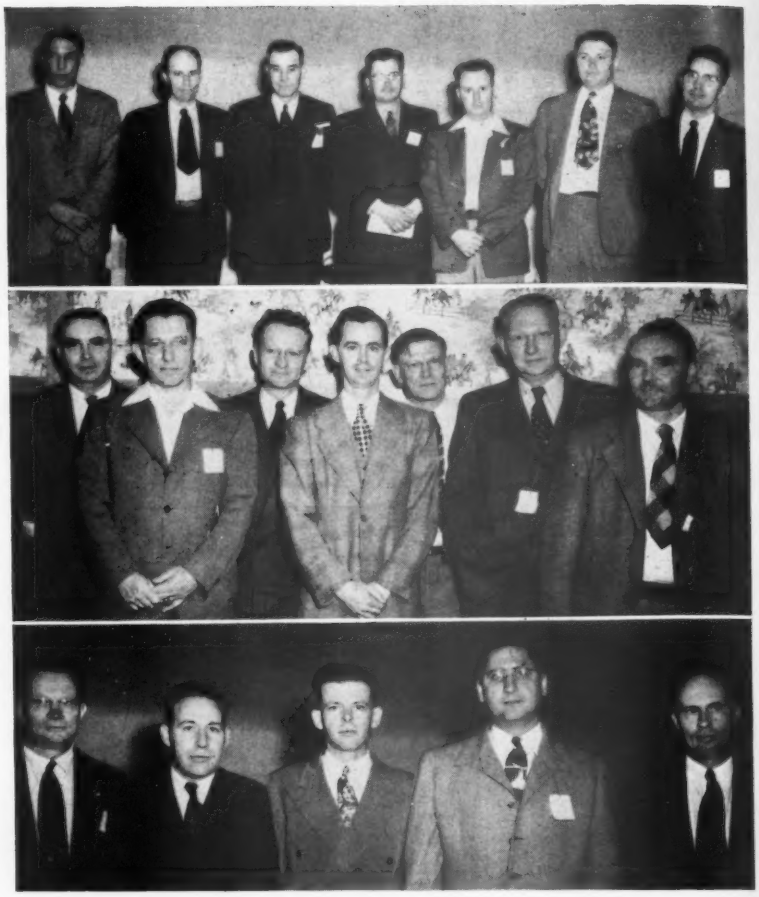
1. Interest yourself in the other fellow genuinely. 2. Let the other fellow have credit for an idea, even if it is your's. 3. Talk in terms of the other fellow's interest. 4. Never criticise, condemn nor complain. 5. Remember a man's name after you've met him. 6. Smile. 7. If you are wrong, admit it.

Pulp Round Table

Pictures of the panels of experts selected for the separate pulpmaking and papermaking group discussions are shown accompanying this article. Sulfate pulping was given more importance than in the past.

Otto Sangder, Rayonier, chairmanned the pulping season. It was interesting to note how these talks led to discussions of corrosion—which seems to be just about the No. 1 problem today in pulping.

Longview Fibre's pulp superintendent, W. J. Shelton, discussed corrosion rate on sulfate digesters and raised the question of whether it was more economical to employ thicker carbon steel digesters and let them corrode, as they would, or lighter guage carbon steel with stainless steel liner, with high ef-



PANELS WHO SERVED IN GEARHART CONVENTION MEETINGS:

At top is Pulping panel (l. to r.): Ray Johnson, Pulp Div., Weyerhaeuser Tmbr. Co., Everett; W. J. Shelton, Longview Fibre Co.; L. D.McGlothlin, Crown Zellerbach Corp., Camas; Otto Sangder, Rayonier, Hoquiam (chairman); Robert Thieme, Soundview Pulp Co.; Bill Pittam and George Beisse, both of Weyerhaeuser Timber Co., Longview.

Middle group is Papermaking panel (l. to r.): A. Newcomb, Crown Z, Camas; Jack Davis, Crown Z, Port Townsend; Rad Russell, Everett Pulp & Paper Co.; Gus Ostenson, Crown Z, Camas (chairman); Antone Siebers, Longview Fibre Co.; Elmer Davis, Crown Z, Lebanon, and P. J. "Pete" Onkels, Pacific Coast Paper Mills of Washington, Bellingham.

And below is Industrial Relations panel (l. to r.): Carl Fahlstrom, Assistant Mgr., Longview Fibre Co. (chairman); Boyd Wickwire, Personnel Mgr., Longview Fibre Co.; Dan McGillicuddy, Jr., Safety Director, Rayonier Incorporated, Olympia; Mike Paul, Asst. Personnel Supervisor, Crown Z, Camas, and W. J. Shelton, Pulp Mill Supt., Longview Fibre Co.

Fits Right into the Finch, Pruyn Modernization Picture

Four Jones HIGH SPEED REFINERS were selected in line with the Modernization of the Finch, Pruyn and Company, Inc. mill. Installed two for each paper machine and operating in parallel, the stock is treated by these small HIGH SPEED REFINERS before reaching the paper machines.

THE MEN'S BREAKFAST AT THE GEARHART CONVENTION, as usual hilariously sponsored by the International Brotherhood of Migratory Peddlers, W.R. No. 1 (of Portland, Ore.) was highlighted by initiation of A. G. "BUFF" NATWICK, Assistant Resident Manager, Crown Zellerbach Corp., Camas, Wash., as its first and only honorary member. All the members took part and they gave Buff a real "working over" but behind all the fun and ribbing he got, was that unspoken but well understood tribute to an industry executive who has done much to encourage young men in the industry and to stimulate the serious work of their pacific Coast associations.

Upper left: Mr. Natwick, with an oversized monkey-wrench which the peddlers recommended to "throw into a competitor's business, or better yet, to put him out of business by applying to his noggin." At right, Buff holds more mock trophies. But he also got a fine cowhide brief case. Ray Smythe of Rice, Barton Corp. (on left), and Z. A. Wise, Vice Pres. of Griffith Rubber Mills (on right), were principal participants in the show.

Lower view—All the members were on stage for their song. Front row (l. to r.): Bob Petrie, Harry H. Richmond, Fred Alsop, Milton Maguire, Z. A. Wise, John Fulton and Bill Marshall. In view in back are Harris Fenn and Buff. Members not visible are Mr. Smythe, Bob True and Ben Natwick. Although just a "fun" organization in public, behind the scenes these men have done much unselfish and unadvertised work to make industry meetings a success.

ficiency against corrosion. One important Pacific Northwest company building a sulfate mill has adopted one course; another, also important and likewise building a new installation, has taken the other.

L. D. McGlothlin, kraft mill cuperintendent at Crown Zellerbach Corp., Camas, discussed knot reject disposal and possible methods of making use of this waste material in a kraft mill.

William Pittam, chemical engineer with Weyerhaeuser, discussed the fabrication and uses of stainless steel pipe. He told of preferences for Stainless Types No. 316 and 304 for particular uses. A problem still being debated in mills is the least expensive type for each particular use. For instance, he raised the question of which was cheapest and best for white water and got no definite answer.

Another Weyerhaeuser man, George Beisse, discussed direct steaming versus indirect steaming in digesters. According to his comany's experiments in automatic steaming, there is less time lag from top to bottom of digester in the direct method. Drifting to that magnetic topic — corrosion — his talk brought mention of the value of stainless piping.

Robert I. Thieme, technical director of Soundview Pulp Co. told of the use of chemicals in an alkaline solution to remove scale from acid heaters, followed up by a high pressure shower of water. In contrast, it was pointed out that use of wire brushes to remove scale wore down the heaters. Stainless steel again got into the discussion as a material for heater tubes and their high replacement cost was pointed out.

Ray A. Johnson, sulfite superintendent of the Weyerhaeuser mill in Everett, talked about use of flow rate indicators in bleach plant and acid plant. With flow meters, better control of quantities and better metering was indicated than had been the case in batch systems. Corrosion turned up its pitted head again as comments were made on the difficulty of getting flow rate indicators which would stand acidity.

Papermakers' "Gadgets"

At the same time this session was going on, the papermakers were having their own tete-a-ete, with Chairman Gus Ostenson, paper mill manager at Crown Z's Camas mill, leading off with discussion of high-pressure water as used in the mills. He told of cleaning all the pipes of paper machines in one complete job with high pressure water.

A. P. Siebers, Longview Fibre Co., had first-hand experience with many of the paper makers "gadgets" or ideas which were offered by several mill's representatives. He told of high pressure pumps (50-gallon, 1000-pound) having been bought by his company 8 or 9 years ago. The original units were portable to facilitate getting the pumps to any specific job in the mill. Because the pumps were frequently taken off to remote parts of the plant, the next high-pressure pumps obtained in the mill were permanently mounted in fixed position and the water piped to specific points where needed. He says both types lend efficiency to the plant operation. Where 18-man crew requires 18 hours to punch out holes in a machine, two men using high-bressure water can do the same job in four hours.

Mention was made of the Self Propelling Nozzle Co. nozzles for cleaning out pipes up to 36-inch diameter. According to one operator, these self-propelling nozzles pull the fire hose, attached to the nozzle, right into the pipe.

Keeping foam down in the headbox is another production problem licked with ingenuity and gadgets. Spray has been used for breaking up the cake formed in headboxes, but with the disadvantage that spray does not break up the bubbles. Mr. Siebers installed a "rain producing" drilled shower, which has better than the spray in this work, but it was not until he made his showers into oscillating units did he accomplish the objective toward which he was directing his efforts. The shower rocks two or three times per minute, doing an excellent job. He plans installing showers on the other machines.

Another of Mr. Siebers' contributions was prompted by the urge to discontinue operation of the head-

box ahead of the jordan. For pressure jordaning, with jordans running in series, the headbox was eliminated by installing air-operated valves.

A solution to the problem of getting broke out of the machines is to use it up as it is made—the way Longview Fibre Co. handles its broke.. A screw conveyor installed at or near the floor catches the broke, transports it transversely out to the side of the paper machine. Before again entering the machine this broke is hogged, with stock to 3 or 3½ per cent, and transported to the broke chest. A flapper over the screw conveyor is operated with an air cylinder and a valve opens to provide water to carry the broke.

Mr. Siebers estimated this unit costs perhaps $2,500, but 'I am satisfied you would get your money back within a year." One of the accomplishments of this unit is to have cut down labor turn-over.

Herb Wymore, Crown Zellerbach Corp., Camas, told of a float controlled constant head feeder developed at that plant and operating satisfactorily. The unit is largely made up of three pipes, the two outside ones (right and left) being small, but the middle member is 18-inches in diameter by 24-inches long. A float operating in this large member controls the intake flow valve through a lever arm. The valve, mode of corrosion resistant Hastaloy, seats on rubber. The intake flow valve is located near the bottom of one of the small pipes, the liquid flowing through to the large pipe and out into the other small pipe from which the liquid is drawn off through an orofoce varying from 3/32" to 20/32".

The unit is rubber lined and has absolute control of flow. Head variations run from one to 24 inches.

Mr. Wymore told of another unit in use at the Camas mill. This is an alum flow control to obtain less than 1/10% pH variation. The alum passes through lead and rubber in this flow control which has variation from 12 to 120 gallons per hour. Three such units are in the Crown mill.

Elmer Davis, Crown Zellerbach Corp., Lebanon, Ore., suggested lining head boxes with aluminum, but tendency for all metal to slime or wear off was brought out.

A gadget for handling the finished product from the board machine was described by Jack Davis, Port Townsend, Wash. He said that previous to installation of this machine the heavy rolls (weighing up to 5,000 pounds) were rolled onto trucks by three or four men pushing the roll up an incline. A 14-inch compressed-air lift was installed a few feet from the scales. Now the trucks are run to the side of the lift, the rolls placed on the lift, lift raised, and the rolls rolled onto the truck.

Costs are estimated at $500, but is considered a paying investment because of time-saving and safety features. One man operates the unit. Use of oil-water emulsion in place of air in hoists was suggested, as the air compresses under heavy loads.

Push-button control of water and stock to a jordan was discussed by Max Oberdorfer, Jr., St. Helens Pulp & Paper Co. Control buttons on the machine tenders' control board activate the electric motors pumping water and stock.

At Longview Fibre Co., it was reported, color is added in minimum quantities, which is close to requirements, but still keeping the stock slightly under color, while a metering pump is used to finally bring the colors up to standard. Mr. Siebers said his company started on this project by using a barrel and globe valve, but now has settled on the practice of using metering pump for dyestuff.

R. E. Austin, of Crown Zellerbach

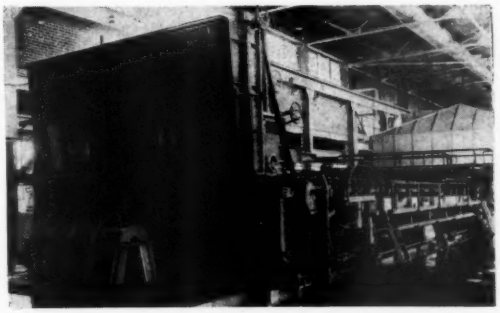
TAPPI PRESIDENT WORTHEN E. BRAWN, of Brunswick, Maine, capped a Coast-to-Coast tour of TAPPI Sections by visiting the oldest section of them all—the Pacific Coast group—and by sampling the fishing in the Pacific Ocean. The fishing party went out to sea from Depoe Bay, Ore., and Mr. Brawn landed one of several ling cod. About a dozen cod and sea bass were caught, but his hosts bemoaned the fact that on that day the fighting salmon of the Pacific were reported 100 miles or so south of where they fished.

Upper left: "Fish on!" was the cry here. Left to right are Howard Morgan, Manager, Pulp Div., Weyerhaeuser Timber Co.; Albert S. Quinn (in back seat), Vice Pres., Stebbins Eng Corp., and Mr. Brawn, who is Gen. Supt., Pejepscot Paper Co. Upper right: The sports fishing boat which carried the party.

Lower views (left to right): The tricky pass out of Depoe Bay leading to the ocean. Mr. Brawn, apparently happy about it all. Ray Smythe Coast representative of several manufacturers and an inventor of flat screens of his own design.

PRESIDENT WORTHEN BRAWN OF TAPPI reports that he has had difficulty convincing his Cape Cod and Down East neighbors that it was a breed of cod that he caught while trolling for salmon on the deep Pacific Ocean. Skipper of the "Tradewinds Trollers" sports fishing cruiser is wearing the sweater, and with him (left to right) are Messrs. Quinn, Brawn, Smythe and Morgan.

Foam Breakers lined with Gaco-Nitrocote providing complete protection against corrosive liquids.



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GACO-NEOPRENE—a synthetic rubber in liquid or sheet form, 1/16" to 3/16" thicknesses—for general heavy duty protection at temperatures up to 250° F.

GACO-NEOFLEX—synthetic liquid rubber particularly adaptable to screen or mesh-like surfaces and other types of equipment where dipping process is more practical than brush application. For temperatures up to 200° F.

GACO-NITROCOTE—synthetic resin lining for bleach solutions at temperatures up to 200° F.

GACO-DUROFILM—synthetic resin lining for general medium protection at temperatures up to 150° F. Excellent lining for beaters, stock chests and exterior of the Fourdrinier at the wet end.

GACO-PHENOLINE—synthetic resin lining designed primarily for protection against contamination at temperatures up to 400° F.

GACO-NATURAL-RUBBER LINING—selected, compounded and applied according to specifications. Recommended in cases where its performance is accepted as superior.

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It's an old story—but now there's a happy ending. After years of experimenting and exhaustive testing, the Gates Engineering Company can offer complete corrosion protection for paper manufacturers and other industries. The secret lies in Gaco specialized coating and lining materials. 6 types—each developed to do a particular job. Gaco coatings and linings provide complete protection against chemical action at temperatures up to 250°F. (Gaco-Phenoline 400°F.). Many applications can be made right in your own plant.

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Tammerfors, Finland

Corp., Port Angeles, Wash., disclosed the technique by which Charles Ackley of that mill (who was at the Chicago convention) patches Fourdrinier wires. This technique, involving use of a patch welder requires a patch lapping the hole about ½-inch all around, is flat and 50 mesh. When in the proper position the strands are at 45 degrees to the Fourdrinier wire strands. Using the point of a dull-point electrode (similar to a dull lead pencil), spot welds are spaced at ⅛-inch intervals all around the patch. Another patching idea was sprinkling of silver solder around a patch, then running over this with a hot soldering wheel. By this method, holes 5 by 8 inches have been patched for a few days' run.

Pete Onkels, Pacific Coast Paper Mills of Washington, Bellingham, Wash., told of an unique arrangement for holding felt edges within a variance of ⅛ of an inch.

Rad Russell, Everett Pulp & Paper Co., Everett Wash., described a technique in his mill whereby paper characteristics have been improved. Two steel rolls, through which water is run, are substituted for one top dryer roll and the paper runs through these two cool rolls which actually sweat a little. The rolls are placed in the drying line at a point where the paper is about 35% moisture content.

Hawley Pulp & Paper Co., Oregon City, Ore., has a system whereby 'much of the trouble from wires filling up has been eliminated", according to Austin Nickles, general superintendent. Drilled showers were discarded for special fan-shaped nozzles using water at 60 to 80-pound pressure. He says three of these nozzles are used in conjunction with the regular pump and the wires are now satisfactory with minimum use of water.

Industrial Relations Meeting

The men's breakfast on the final morning was the customary funfest led by "Wake 'Em Up" Wise, and the goings-on are illustrated and described in captioned pictures accompanying this article. Fun on the surface. But behind it was a tribute to efforts which A. G. "Buff" Natwick, assistant manager of Crown Zellerbach at Camas, has made over the years to encourage and assist association meetings.

A joint forum on industrial relations chairmaned by Assistant Manager Carl Fahlstromm of Longview Fibre followed. It was led off by his company's personnel manager, Boyd Wickwire, discussing functions and duties of his office.

Generally, he said, this task is to coordinate all policies and activities affecting management-employe relations and he stressed the importance of encouraging and creating harmonious relationships in the company. Specifically, he outlined six duties as follows:

WALTER A. SALMONSON, 519 White Bldg., Seattle, Wash., whose appointment as Pacific Coast representative of Draper Brothers, Canton, Mass., manufacturers of papermakers' felts, is announced by Ralph E. Briggs, Sales Manager.

Mr. Salmonson has had experience in the big Camas and West Linn mills on the Coast and he is the son of Sam Salmonson, former chairman of the Pacific Coast Division of Superintendents and a veteran Superintendent in mills in New York, Maine, Mississippi, Quebec, British Columbia, Ontario and Washington. He now lives at Depoe Bay, Ore. Walter, who was born in Hudson Falls, N.Y., and his wife, Janet, and their four children, live at 7730 Sunnyside, Seattle.

"1. Recruiting and placement of employes: It is necessary to have standards set up for each job. The applicant should have a physical examination. On jobs where special training and skill are required, the superintendent or someone he selects should interview the applicant and he should go through the regular pre-employment aptitude and intelligence test.

"2. Health and safety of the employe: Later in this program you will hear a talk on safety so I will not discuss that, but will tell you some of the things that we are doing as far as the health of the employes are concerned. Last year we gave all of our employes a physical examination. Parts of this examination were blood tests, chest X-rays, and an eye examination on an eye screening machine. We intend to give chest X-rays again this year.

"3. Develop training for supervisors and employes: A few years ago when management decided to make a new supervisor, they picked a man with the highest productive record. Today men are picked for a great many different reasons: How he gets along with his fellow workers; how he gets along with the mechanics; can he follow instructions; is he respected by people he works with? A great deal of time is spent in giving him training in labor relations, job instruction, first aid, and he attends foreman's meetings and the superintendent spends a lot of time in giving him direct individual instruction. We feel it is very important to spend a lot of time in training workmen who are recently promoted or newly hired. With the use of job instruction training, we have cut our training time, per employe, down 50%.

"4. Transfers and promotions: On the subject of transfers and promotions, I feel that the whole labor relations program can fail if it is not properly handled. Employes should be kept advised if they are in line for promotion. Most common method is to have the promotional ladder posted in the department. This keeps personalities out of promotion and the employe who is to receive the promotion is in most cases ready for the job. If an employe is not doing satisfactory work and will not be promoted, the employe should so be advised. We have no set procedure for transfering employes from one department to another, except in our mechanical department. We have an agreement with the union that whenever there is a job of 'D' helper open, we will post this information. On all applicants for mechanical helper jobs we give the applicant the mechanical aptitude and intelligence tests.

"5. Meetings with union committee: There are as many different ideas on how the personnel department should conduct themselves on the matter of meeting with the union committee as there is for cooking pulp or making paper. I find that if you only talk to a union committee whenever they have a grievance, and that every meeting that you have with the union is an official meeting, then every complaint that they or you have will become a grievance. In almost every official meeting someone has to get hurt, either management or some workman, whereas, if we could have had the information immediately when the complaint arose, we could probably have worked it out so that no one would have been hurt. If the personnel department could get the union and the supervisor together they could settle minor complaints immediately.

"6. Mill rules and dismissals: Recently we have started using a pocket size card for mill rules and rules in the Uniform Labor Agreement and intend to republish these whenever there is a change. In cases of dismissals the Uniform Labor Agreement pretty well determines the rules. However, in some cases employes are discharged by supervisors and management then feels that they must back up the supervisor. If a personnel department is on their toes this should never happen. A supervisor, instead, could tell an employe to leave the job and return the following day. This gives the supervisor a chance to check with his superior and to do more thinking about the case and, on the following day the employe can still be taken back to work without the supervisor losing face. If I were a supervisor I would dislike very much to be the sole judge as to whether an employe is to be discharged or not."

Safety

Dan McGillicuddy, Jr., safety director, from Rayonier Incorporated's central public relations department in Olympia, then took the floor.

"The first step in any safety program is to determine the problem," he said. "Complete records of all accidents and the ensuing investigations must be kept to permit intelligent direction of the program. The investigations are not conducted to fix blame, but to establish responsibility; not responsibility for the accident but responsibility to correct the condition or practice causing the accident. Good supervisors recognize this

INCIDENTS IN SMITHway PRESSURE VESSEL RESEARCH

PROJECT NO. 35710-4

Weld brittleness eliminated after heat treatment of stainless steels

IN the welding of stainless alloys, commercial electrodes of the right chemical composition for each type of stainless alloy produce welds of excellent ductility, in the "as-welded" condition. Elongation in 2-inch gage length is usually in the range of 35 to 50%.

However, when it becomes necessary to stress-anneal welded stainless steel sections at temperatures of 1600° F., the welds sometimes become brittle and the elongation in a 2-inch gage length is reduced to less than 10%.

Extensive tests by the A. O. Smith welding research laboratory proved that the presence of excessive silicon (above 0.60%) in the weld metal was an important factor causing embrittlement. These tests further brought out the fact that, when the silicon was held to a maximum of 0.50%, consistently ductile welds resulted after stress-annealing and the elongation was increased to a value of 25 to 30% in a 2-inch gage length.

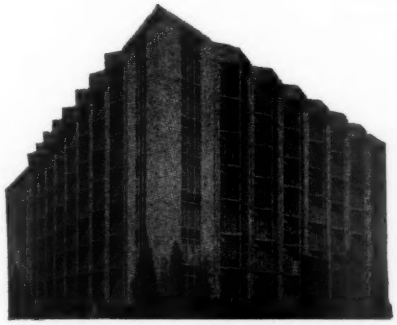
This critical problem, which limited the use of some stainless steels, was solved when the welding research laboratory adjusted the chemical ingredients of the electrode coating to balance the silicon content in the weld metal.

Tensile test showing ductility of stainless steel weld metal "as welded."

Tensile test showing embrittlement of stainless steel weld metal after stress-annealing at 1600° F.

Tensile test showing ductility of stainless steel weld metal, made with SMITHway controlled electrodes, after stress-annealing at 1600° F.

This SMITHway combination of electrode development and manufacture for *SMITHlined* pressure vessels is a unique advantage to pressure-vessel users.



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responsibility as an opportunity to demonstrate leadership; the opportunity to establish good employe relations, which are necessary before accident prevention or maximum production can be achieved.

"The foreman or supervisor is the key to effective accident prevention. It is necessary that each department be kept aware of its problem through the use of conferences and regular weekly, monthly, and yearly reports. With the help and advice of the safety supervisor, the safety problem of each department can be solved and unsafe practices can be minimized.

"Perhaps the best tool in accident prevention is the safety committee. Establishment of a central committee, of equal representation by employes and supervision, to recommend the policies for accident prevention enables management to prove its sincerity in safety by taking prompt action on all recommendations. Other functions of this committee are to make inspections of the premises and establish departmental safety committees. These departmental committees should also have both employe and supervisory representation. The primary duty is an inspection of the department with recommendations to management for correction of physical hazards and unsafe practices. This committee should investigate and discuss all accidents occurring between monthly meetings."

Mr. McGillicuddy stressed that all employe suggestions should be considered and acted upon by the committee and membership on all committees should be rotated to permit greater participation. There should be payments for suggestions only if there is an incidental production saving.

He noted the importance of first aid training in safety education. Regarding injuries, he said reports should be made on even the slightest case which might involve infection and he pointed to the benefits of getting an injured workman back on the job as soon as possible from morale and financial standpoints.

During questioning, Mr. McGillicuddy recommended that inspections of other departments besides its own by a safety committee were beneficial and developed a competitive spirit.

Industrial Testing

Industrial testing was discussed by E. A. "Mike" Paul, assistant personnel supervisor of the Crown Zellerbach mill at Camas, who gave credit to Mrs. Vera Berney, women's personnel supervisor and head of the testing program at Camas for much of his information.

"Our procedure is to first hold a screening interview," he said. "If the person who presents himself for a job is obviously not a desirable employe, there is no follow-up. If the individual seems desirable, has housing, is readily available for work, he is given an application blank and scheduled to take the pre-employment tests. Two tests are given—the Otis mental ability test and the Humm-Dadsworth temperament test. To those who are applying for office or technical work, additional Thurstone clerical tests are given, a typing, shorthand or comptometer test if those are the needs of the job. There are many aptitude tests available. So far we have made use of only the clerical and mechanical aptitude tests. From the battery of tests given we seek to determine if the mental ability, the temperament and the skill are suited to the job available. We remember at all times that the tests are only one tool in the hiring procedure. We give strong consideration to the interview, the person's appearance and personality, the information contained in the application, the work experience the person has to offer and what we may know about him.

GRIFFITH RUBBER MILLS, PORTLAND, ORE., announcing increased plant facilities and business expansion, have named JAKE WERSCHKUL above) as Director of Roll Sales for the industrial rubber manufacturing concern. Mr. Werschkul will contact all Pacific Northwest pulp and paper mills to obtain markets for the firm's output of industrial rubber rolls. He will be assisted by Bob Baer, head of the small rolls division. Mr. Werschkul, Portland-born, served in naval aviation during the war, and was also connected with Oregon War Industries.

"Aptitude testing alone is not enough, since aptitude testing will fit the worker to the machine, but not to his fellow worker. Our applicants are all requested to take pre-employment physical examinations to help in determining the jobs for which they are best suited. Sometimes an applicant who has had a good educational background presents himself, but is uncertain whether he would be most interested—for instance—in technical or office work. To such an applicant we also give an interest test to aid him in getting as suitably located as possible.

"About three months ago, I took the names of 300 persons on our payroll and checked with their foremen about their work, energy and cooperativeness, and I found 87% agreement with the predictions of the tests at the time they were hired. In most of the cases where there was disagreement, it was to the advantage of the worker. In those cases, no doubt, a part of the improvement was due to thoughtful placement, together with proper supervision.

In an analysis of the tests, Mr. Paul said:

"By giving the IQ test we learn the mental ability of the individual. It doesn't mean that we hire only those who rate above average, or a grade of 100. For technical, office or professional jobs, a high mental rating is necessary or at least desirable; but we recognize that for many plant jobs an IQ or 80 or 90 is preferable as that intelligence is completely adequate to handle the requirements of the job and the worker is more apt to remain satisfied, even on a monotonous, repetitive job. Learning the mental capacity of an applicant, therefore, does not mean that we discard all those who are not mental giants, but simply that we have an added aid in trying to make a satisfactory placement.

"The temperament test helps us to know what to expect of a person. If the labor supply is ample, we hire only those whose tests indicate that they are reliable, cautious and energetic. Of course, even then we must consider other factors—whether a person is a home town boy, a veteran, or some other person who merits special consideration. We have had innumerable confirmations of the tests, both those that rated good and those that rated poor. A number of temperament or personality tests have been considered. On some of them a clever fellow can distribute his answers so as to give an invalid result, but we have had several proofs that the Humm-Wadsworth test which we now use is practically foolproof. In fact, it even shows if a person tried to beat the test.

"A personality aptitude is important in job placement, for psychologists tell us that 6% of failures in jobs are due to low mental ability, 6% to physical handicaps, 3% to miscellaneous causes, but 85% of the failures are due to faulty personality or poorly adjusted temperaments.

"Other tests which form an integral part of a testing program are the skill and aptitude tests. A typing test is a skill test, but a clerical test is an aptitude test, it shows the aptitude which an individual possesses for clerical work. The same is true of a mechanical aptitude test. Some are pencil and paper tests, others are manipulative devices to test finger dexterity or spatial perceptiveness. In order to benefit from the results of such tests, a good job analysis inventory is necessary, else what good does it do to know that a man can perform fine precision operations, yet never to know job requires such an aptitude?

"Tests predict the success or failure of a person on a job before, instead of after hiring or placement," he said in conclusion. "As such they are valuable in saving embarrassment to both worker and employer. Testing must supplement, not supplant the interview and all other sources of information we have. Records of test scores must be among the most confidential of the company's files. To use these records indiscriminately as a disciplinary tool or to promote individual competition is to cheapen the entire program."

Employe Job Rating

Pulp Supt. W. J. Shelton of Longview Libre Co., in presenting his company's said it was "just a formalized way of getting foremen to do what they should have been doing in the first place."

Trial of plan was begun in Longview Fibre's pulp mill division one year ago and it is for this period that Mr. Shelton presented observations.

"The purposes of establishing an employe rating system," he said, "are to insure the elimination of unsuited personnel during probationary period, to improve the selection of employes for higher responsibilities, to provide documentary evidence to substantiate personal actions to the management and to the unions, to facilitate the passing of information from one supervisor to another in the case of interdepartmental transfers, and to help individual employes improve themselves by insuring that they are advised of the status of their performance."

The qualities used for ratings were se-

The modern mill is a

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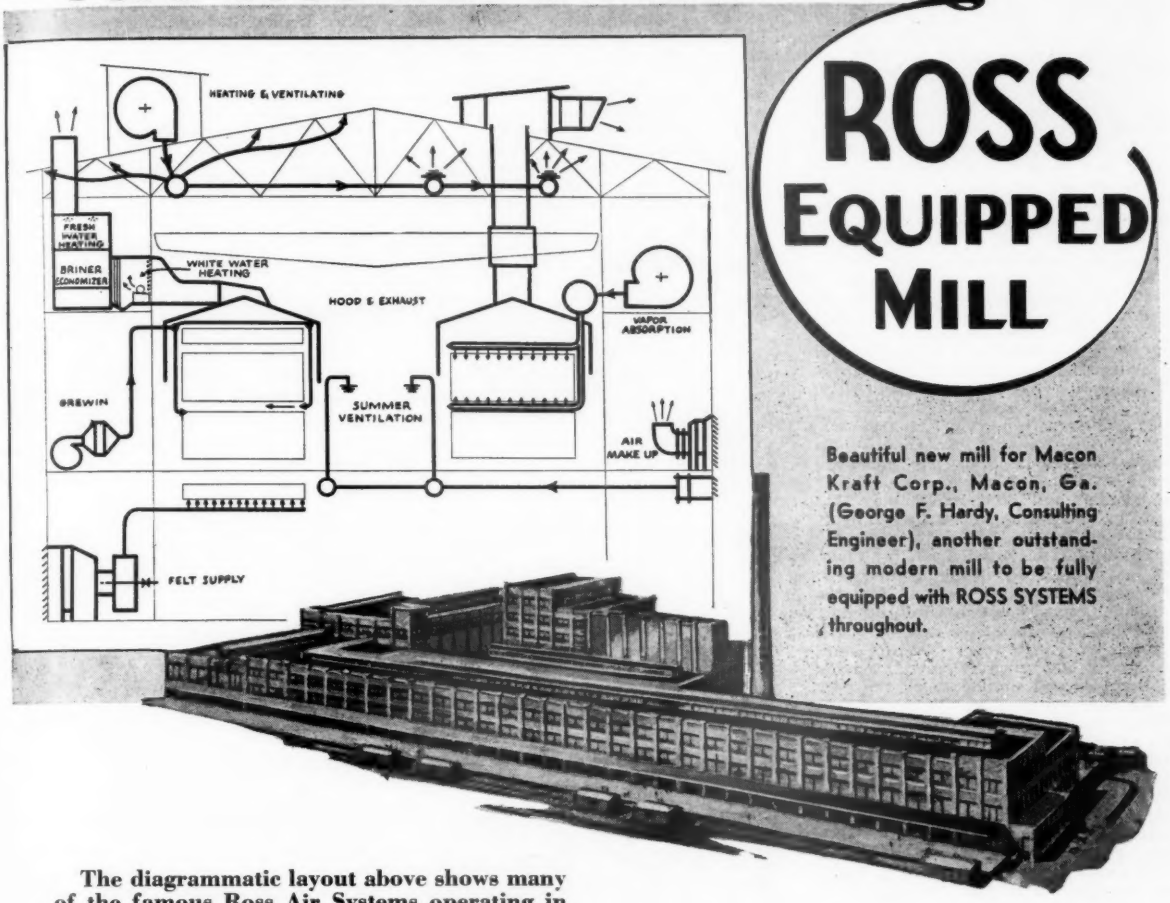

Beautiful new mill for Macon Kraft Corp., Macon, Ga. (George F. Hardy, Consulting Engineer), another outstanding modern mill to be fully equipped with ROSS SYSTEMS throughout.

The diagrammatic layout above shows many of the famous Ross Air Systems operating in machine rooms throughout the industry. Heating and ventilating machine rooms where millions of cubic feet of air are extracted every hour; reclaiming heat units from waste vapor to cut steam costs by heating air and water: removing vapor to increase drying capacity; cooling working areas; prolonging life of felts —these are but some of the important functions of these and other ROSS Machine Room Systems.

Some of the other ROSS Systems not shown in the diagram are the ROSS Paper Conditioning Systems including the advanced Cycle Conditioning System, Exhaust and Supply for Beater and Hydrapulper Rooms, Foam Exhaust, Dust Systems, Calender and Motor Cooling Equipment, Grinder Exhaust Systems, Trim Conveying and others—all proven methods for increasing output, improving quality of product and reducing operating costs to the minimum. ROSS Systems are today considered as essential as the paper machine itself.

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lected in an interview of all divisional supervisors by R. P. Wollenberg of the mill staff. Slight changes have been made in these qualities or nomenclature. The items on a rating form included:

Employe's name and occupation, days off sick, days off other, lost time accident, safety rating, knowledge of job, quality of work, amount of work, can learn next job, ready for next job, housekeeping, care of equipment, cooperation, conscientiousness, supervisory ability, follows instruction, date man was given rating, rating by immediate foreman, by supervisor of shift, by assistant division supervisor and by division supervisor.

In addition, for supervisory ratings, these qualities are added: Ability to plan, to organize, to train, to handle help, initiative, and supervisory participation.

The ratings given are exceptional, above average, adequate, borderline and unsatisfactory.

"The time interval selected for the giving of ratings was every six months for established employes but for new employes, ratings were made at 30, 60 and 80-day intervals," said Mr. Shelton.

"The important step in the whole system is the telling of the employe his rating. This is done by the immediate foreman. The interview is completely confidential and no employe may find out another's rating unless that individual reveals it.

"Where are the pitfalls? In the main, the major difficulty is in the interview. Few supervisors were selected for this particular capacity and we find the most stumbling takes place at this most impotrant phase. However, we did note the second ratings given went off with greater ease and confidence on the part of the foreman.

"For advantages we find many. It offers a systematized method for crew evaluation never before obtained by foremen. It offers a 'let-your-hair-down' session where you can sell a few company policies—better housekeeping, improved safety records. It gives an employe a chance to know exactly what his foreman is thinking about his work and the qualities that go to make up a job rating. We have found some of the most sullen and anti-social men in the mill had never been told before that they were difficult to get along with. After the first rating we had very marked improvement. The employes are not antagonistic to the plan, which speaks well for anything new."

G. F. Alcorn, chairman of the Coast Superintendents was toastmaster of the second day's luncheon and R. S. Hatch, national charter member of TAPPI, was chairman at the final dinner, with Mr. Brawn chief speaker on both occasions. Principal points of his talks were reported at the beginning of this article.

Jack Wilcox, Paul Holmes and Mrs. Roy Shaneman Are Tops in Golf

Golf at Gearhart on the oceanside course was again a popular attraction, as it had been the previous year. Paul Holmes, steam plant engineer, St. Regis, Tacoma, had low gross, with Gus Ostenson, paper mill manager, Crown Z, Camas, 2nd; Harris Fenn, National Analine Div. of Allied Chemical, 3rd, and Carl Fahlstrom, asst. mgr., Longview Fibre, 4th.

Jack Wilcox, Electric Steel Foundry Co., had low net, with Eric Ericcson, tech. director, Puget Sound Pulp & Timber Co., 2nd.

Mrs. LeRoy (Mary Grace) Shaneman, wife of the Penn Salt Mfg. Co. of Washington, manager for that company's new Portland, Ore., operations, had both low net and low gross for women as well as longest drive on first hole. Mrs. George (Carolyn) Gallaway, wife of Crown's Lebanon mill manager, had nearest pin honors and for second place in low gross, Mrs. Walter (Jeanette) Jacoby, wife of the technical director at Camas, and Mrs. Irving Gard, wife of Merrick Scale's representative, were tied.

Bill Marshall of Pacific Coast Supply, assisted by Fred Alsop of Mount & Alsop, staged the golf tournaments and a very impressive and a fine collection of about 50 prizes were donated by American Cyanamid Co., General Chemical Co., Dupont Co., Mount & Alsop, Dow Chemical Co., Stauffer Chemical Co., National Analine, Shartle-Black-Clawson, Hooker Electrochemical, Penn Salt, Appleton Wire Works, Stebbins Engineering, Simonds Saw & Steel, Pacific Coast Supply, General Dyestuff, Electric Steel Foundry, Western Gear, Waterbury Felt Co., Orr Felt & Blanket Co., Dan Charles Agency, Walter Salmonson, R. E. Chase & Co., A. C. Dunham, Ray Smythe, Buckman Laboratories, Allis-Chalmers, Titanium Pigment, Gates Rubber, Van Water & Rogers, John Bolton, Hardy Tool and General Electric.

Another British Columbia Mill Project Seeks Timber Backing

Representatives of a large Canadian timber organization have made inquiries of the British Columbia forest service with regard to the proposed establishment of a pulp mill near Campbell River, Vancouver Island.

Identity of the group has been withheld, but it is understood to be a company already operating on a large scale in British Columbia in the logging and lumber manufacturing field.

Choice of the Campbell River site was influenced by the location there of a power plant by the British Columbia Power Commission. This plant will start generating power this summer, and its first big customer will be the Bloedel, Stewart & Welch pulp mill at Port Alberni on the west coast of the island. Transmission lines are now being laid.

The Port Alberni mill will depend to a large extent for its raw material on slabs from the Bloedel sawmill at Port Alberni, and it is understood that the increasing availability of small logs and logging debris, as well as mill refuse, is one of the factors responsible for the Campbell River pulp mill proposal at this time.

Fibreboard Appointments

IMPORTANT CHANGES IN FIBREBOARD PRODUCTS Inc., affected this trio (left to right): CLAUDE M. STITT, who becomes Resident Manager of new $15,000,000 San Joaquin Division pulpmaking-board-conversion operation being built at East Antioch, Calif.; MARCUS "MARK" E. SANFORD, who succeeds Mr. Stitt as Resident Manager at Antioch Division, two miles west of the new site, and LEONARD O. FOX, who succeeds Mr. Sanford as Resident Manager at Sumner, Wash., Division, where Mr. Fox was Office Manager.

The above trio figure in recent important changes in management if Fibreboard Products Inc., Pacific Coast operations, as announced by Vice President N. M. Brisbois. Claude M. Stitt leaves Managership of the existing Antioch, Calif., mill to be in charge of the new San Joaquin Division consisting of a pulp mill, board mill and conversion plant two miles east of Antioch. Ground has been broken here and the first unit is to be in operation in mid-1948. A complete semi-kraft .009 corrugated mill utilizing a Fourdrinier, a bleached kraft pulp and board mill, using Asplund Defibrator process for semi-chemical pulp and a cylinder machine, and a complete carton converting plant are principal units. Mr. Stitt, who played baseball at U. of California in college days, and served Fibreboard for 23 years, first as plant engineer at Antioch, finally, two years ago, manager at Antioch. He has two daughters.

Marcus "Mark" E. Sanford, 42-year old Manager at the Sumner, Wash., plant who becomes new Manager at existing Anitoch mill, was born in Pomeroy, Wash., graduated from U. of Washington in chemical engineering in 1929 and a few days later joined Fibreboard at Stockton, Calif. Shortly thereafter he moved to Antioch and then to Sumner in 1931 as chemist. He was acting manager for a period in 1936, then as assistant manager until he took charge in 1941. He was fishing in the Mount Rainier area with his 15-year old boy as this issue went to press, before moving South.

Leonard O. Fox, new Manager at Sumner, was born in Springfield, O., and raised in nearby Franklin, both towns in one of the greatest paper industry regions in the world—Ohio's Miami Valley. But he came west to enter the industry right at Sumner, starting in on construction and later in beginner's jobs in the mill. He worked up the ladder to office manager in 1945. He's 40 and has two sons.

As result of these changes at Sumner, Robert Vaughn, plant chemist, since 1936, is now named assistant manager. As soon as he graduated from University of Washington on June 13 with degree in chem. eng., young Don Foster, a Sumner boy, stepped into Mr. Vaughn's shoes as the plant chemist.

Construction of Celanese Mills Scheduled to Start This Month

Construction of the new $15,000,000 pulp sulfite-kraft operations by Port Edward Cellulose Co., subsidiary of Celanese Corp. of America, at Port Edward, near Prince Rupert, B. C., will be under way by the end of July, and it is hoped to have the plant in production within two years, according to George Schneider, vice president of celanese, who visited the mill site with a group of his company officials in May.

During Mr. Schneider's visit to the coast, the exclusive announcement in the June issue of PULP AND PAPER Industry that Celanese planned a bleached kraft pulp mill as well as a high grade bleached sulfite pulp mill was officially confirmed.

The kraft mill's construction will take place simultaneously with that of the sulfite mill. At this stage of the program prospective capacities of the two mills are not being stated with any attempt at exactitude, but it is expected that the sulfite mill will be capable of producing at least 250 tons initially and may ultimately produce 400 tons, while the kraft mill's capacity will be between 150 and 200 tons daily.

The Celanese party was welcomed at existing pulp mills on the Pacific Coast and were freely shown modern processes similar to those they may install at Port Edward.

The main reason for the May visit to Port Edward was to determine the actual site of the mill and arrange for various engineering details.

A. T. Hurter; of the Montreal consulting firm of Stadler, Hurter & Co., accompanied the party and returned east about the same time as Mr. Schneider and his group left for New York. During the coming months, Stadler, Hurter & Co. will concentrate on plans for the Port Edward project. Their other big job, recently carried out, involved preparation of plans for the LongLac Pulp & Paper Co. at Terrace Bay, Ontario.

The Celanese officials are now working on their final estimates of cost, and at Victoria details in connection with the long-term forest management license are being completed. This is the first license of its kind to be issued by the British Columbia government. It is based on legislation enacted by the provincial legislature last spring and provided for administration of the Port Edward Cellulose Co.'s timber limits in the Skeena, Naas and Kitsumkalum River watersheds on a perpetual yield basis.

"One of the things we have to consider is the type of permanent construction best adapted to the locality and the availability of materials," said Mr. Schneider, while on the west coast, and that one of the points favoring the Port Edward location for a mill was the availability of considerable housing accommodations near the mill site.

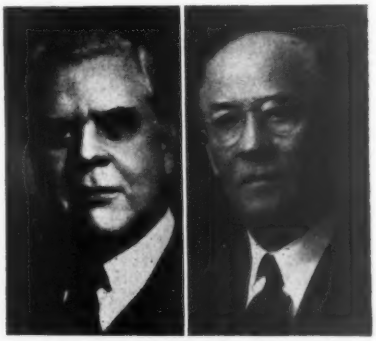
During the war years Prince Rupert was a humming seaport because it was the supply base for Alaska. Many buildings were erected there that have been vacant since wartime activity ceased. Some of these will be useful to the pulp company.

Mr. Schneider's party was met at Prince Rupert by representatives of the chamber of commerce and he told them that he believed Port Edward was the ideal location for a pulp mill. He also said that the mill would give permanent employment to at least 1,000 persons, including the woods operations.

Mr. Schneider stated that the company planned to install its own 6000-horsepower electric plant at Port Edward to supplement such power as may be available from Northern B. C. Power Co., but it has not been decided whether oil or coal will be used as fuel. Some of the fuel, of course, will be slabs and other mill refuse.

Personnel of the group who visited Port Edward was, in addition to Mr. Schneider: Samuel B. Roberts, chief engineer; C. H. Klotz, project engineer who will soon return to the coast from New York and be personally in charge of the construction phases; G. W. Seymour, assistant research director; R. S. Baker, sulfite pulp technician from Montreal; A. T. Hurter, designing engineer; F. C. Underhill, consulting engineer, Vancouver; D. G. Stenstrom, west coast representative, Vancouver.

The provincial government and the Prince Rupert civic authorities have undertaken to improve the roads serving the mill site.



H. C. KINSEY (left), who became President of Cameron Machine Co., Brooklyn, N. Y., upon retirement June 1 of W. B. WILSHUSEN (right), who had been President since passing of James A. Cameron, founder, in 1933. Mr. Wilshusen, in 32 years, has served as Advertising Mgr., Sales Mgr. and Secretary as well as President. He will continue as company representative in California where he will live. Mr. Kinsey was Vice President recently and a director for 20 yrs. A Stirba, Sr., Works Mgr., has been elected Vice President, and R. W. Cummings, Service Mgr., became Secretary. Two new Directors elected are Joseph Scheuermann, Sales Mgr., and Palmer J. Lathrop, Plant Mgr.

Celanese Executive Proves Fishing Prowess

George Schneider, vice president of Celanese Corp. of America, has discovered that the north coast country of British Columbia grows big fish as well as big pulpwood trees.

Mr. Schneider had more than one reason to visit that region this summer. The principal one, of course, was to look over the ground at Port Edward, near Prince Rupert, where the Celanese subsidiary, Port Edward Cellulose Co., plans to build a $115,000,000 high grade sulfite and sulfate pulp operations. But another one—and not so unimportant either—was to see if all these fish stories he had heard about British Columbia's rivers and lakes had some foundation in fact.

When Mr. Schneider arrived in Prince Rupert, a fishing trip was arranged to Lakelse River, near Terrace, B. C. (not to be confused, as it sometimes has been, with Terrace, Ont., where Kimberly-Clark Corp. is building the LongLac Pulp & Paper Co. mill). G. W. Seymour, assistant research director from the Celanese New York office, and Dave Stenstrom, Vancouver representative, went along. The party caught 16 trout, most of them taken by Mr. Schneider.

Allan Morgan, the Prince Rupert businessman who arranged the fishing trip, said:

"Mr. Schneider made the longest and most accurate casts of any man I have ever seen."

Soil Testing For Celanese Mill

Northwest Construction Co. has started soil testing at the site of the Port Edward Cellulose Co.'s high grade sulfite and kraft mills on the south end of Watson Island, eight miles from Prince Rupert, B. C. The tests are being made to determine the extent of solid excavation required and the exact location of the plant.

(Continued from page 39)

use of trucks. During the last war a fleet of approximately 100 trucks was maintained to meet their pulpwood trucking requirements. Several types of trucks were used, 1½ ton converted models with dual wheels, followed by 10 wheelers with dual rear end drives, and more recently by a heavier oversize 10 wheel truck capable of hauling six cords of wood or better. With the disposal of much of the older truck equipment, plans are underway to standardize on the heavier type truck equipment so that there may be an interchange of parts and a simplification of the entire truck maintenance problem. While pulpwood trucks operate on main roads to a considerable extent, they also operate on excellent woods roads maintained with a fleet of motor graders, scrapers, and bulldozers.

Two-cylinder gasoline powered saws have come into very general use by Brown and are used for both felling and bucking. Portable circular saws are frequently used at the landings or in conjunction with several types of automatic loaders. The company has experimented with a number of loaders and is now settling on a light-weight chain-and-dog conveyor operated by a five h. p. air-cooled motor.

Caterpillar tractors are no longer a novelty in woods operations but these are sometimes given special attachments in the Brown shops at Berlin. An adaptation of the Hyster type arch has been developed, its main feature being a lower-slung design which does not have a tendency to tip over on rough and steep terrain.

A new development by Brown and never seen in New England until now, is the open-loaded railroad car which saves a great many man-hours in both unloading and loading of pulpwood which has heretofore been loaded through the main doors of the ordinary freight box car. There are about 100 of these in use at present.

A work boat fleet is maintained in the woods operations, including the Steamer Frost, the Steamer Rowell, and the Steamer Diamond, sister side-wheel tow boats; the Steamer Alligator, the Buda Diesel powered Dorothy, Russel winch boats, and a large fleet of steel converted life boats with both inboard and outboard power.

Although Brown operations are steadily working toward a year round operation, it is still the spring drive which is the signal for quickening of activities along the Androscoggin Valley. The problem of transporting thousands of cords of pulpwood from within four miles of the Cananian border south to the Berlin mills is a complex one involving brooks, rivers and lakes, and the combined efforts of men, machines, boats, and a coordinated office staff.

Such operations as are encompassed by Brown Company naturally require a vast allied activity. There must be advertising to the farmers by means of newspaper space, grange meetings, displays at county and state fairs, special motion pictures, and posters. During the three years the Woods Department has been exhibiting at various county fairs throughout northern New England, they have shown at 33 fairs and 116,540 people have visited the exhibits.

The complicated and progressive woods operations of Brown Company, which require employment of thousands of men and expenditure of millions of dollars yearly, plays a vital part and holds a foremost position in the procurement program of a company whose existence depends on the assurance of an adequate and continuous supply of pulpwood.

(A third article on Brown Company will appear in an early issue.)

$3,500,000 Expansion At Glatfelter Mill

Offering of 6,243 shares of 5% cumulative first preferred stock of P. H. Glatfelter Co. is being made by a syndicate composed of Stroud & Co., Inc., E. H. Rollins & Sons, Inc., and Graham, Parsons & Co. The stock is priced to the public at $101 per share plus accrued dividends.

Proceeds from the sale of these shares will be used to provide in part for expenditures required for a $3,500,000 improvement program. Annual mill capacity will be increased from 45,000 tons of paper to 60,000 tons. The company is also installing new boilers, turbines and other power equipment and improving its water storage and stream improvement facilities.

Swedish Superintendent Studies U. S. Mills

A recent visitor to Pacific Northwest mills was Sven Sjunesson of Hissmofors A-B, Krokon, Sweden. After making a study of American pulp mills, Mr. Sjunesson will return to Sweden to resume his duties as sulfite superintendent of the Central Sweden mill.

Belden Leaves Sorg; Rhodes Promoted

C. M. Belden, resident manager of Sorg Pulp Co. at Port Mellon, Howe Sound, B. C., for the past two years, has resigned.

Vice President and General Manager Hugh M. Lewis announces that Murray Rhodes, who has been at Port Mellon for some time, has been appointed pulp mill superintendent.

Barrell's Paper Annual Has New Features

Barrell's Paper Annual 1947-1948, besides containing the most up-to-date Directory of officials of 31 Paper Industry Associations, and an account of Franklin Institute of Philadelphia and its papermaking exhibit, includes a revised and enlarged edition of the illustrated dictionary, Paper Trade Terms, compiled by William Bond Wheelwright.

R. G. Macdonald, sec.-treas of TAPPI, was helpful in definitions of new paper terms introduced during the war years.

Copies of Barrell's Annual may be obtained, free of charge, on application to William L. Barrell Co., Lawrence, Mass.

Teaze Withdraws From Ferguson & Co.

Moses H. Teaze, one of the most widely known engineers in the industry, has amicably withdrawn from membership in the firm of Hardy S. Ferguson & Co., 200 Fifth Ave., New York, he told PULP & PAPER last month.

His future plans are indefinite, but he will live in semi-retirement for at least several months "doing some of the things I have long wanted to do," he said, "including catching up on my reading." He joined the Ferguson firm in 1910 and is high in his praise of his almost four decades with the company. Mr. Teaze resides at his home at 31 Clarendon Place, Bloomfield, N. J.

Ashby Is Manager At Westminster Paper Co.

John Ashby, formerly technical director at Westminster Paper Co., New Westminster, B. C., has been appointed mill manager, according to announcement by President E. M. Herb.

Mr. Ashby joined Westminster Paper Co. in 1935 after serving as a chemist with B. C. Pulp & Paper Co.

He is chairman of the technical section, western branch, Canadian Pulp & Paper Association.

Egan Elected Prexy Of Pulpmen's Golf Group

Edward B. Vaughan, Bulkley Dunton Co., had low net for 18 holes; Rolf G. Westad of Borregaard Co., low net for 27, and Fred Enders, president of Bulkley, Dunton Pulp Co., was kicker's handicap winner and Fred Van Streain had low gross for 18 holes in the annual New York Pulpmen's Golf Association tournament on June 3 in Mamaroneck, N. Y.

Roger Egan, of the Bulkley, Dunton Pulp Company, Inc., had been elected president of the Association for the next year; William Flohr, of Parsons & Whittemore, Inc., vice president, and Donald A. Fraser, of the Fraser Industries, Inc., secretary and treasurer.

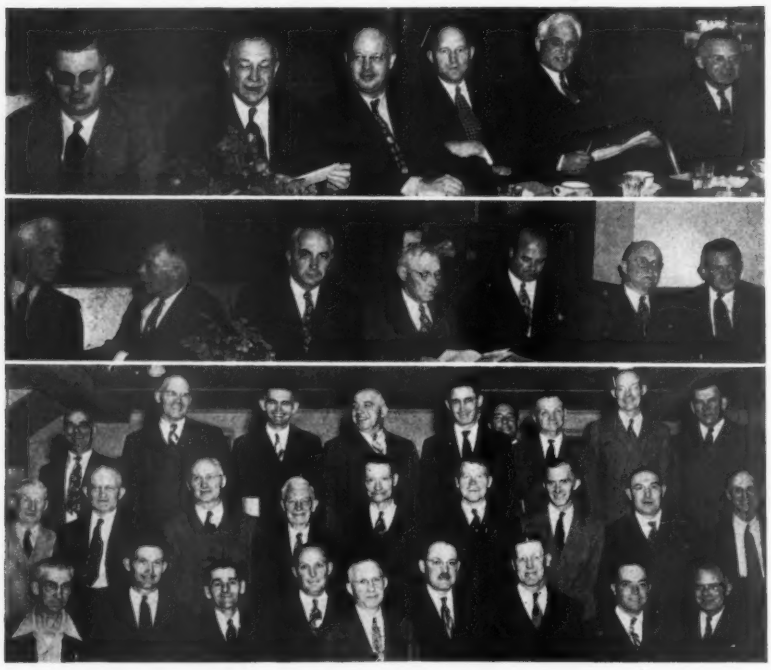
Next Delaware TAPPI Meeting in October

The June meeting of the Delaware Valley Section of TAPPI was cancelled and the next meeting will be scheduled in October and will be very important.

Newsprint Up

Canadian mills produced 169,032 tons more of newsprint in the first five months of 1947 than in the first five months of 1946, an increase of 10.1%. The output in the U. S. was 18,105 tons or 5½% more.

An Anniversary is Simply Observed at Shelton



20th ANNIVERSARY of the first bleached pulp mill in Washington State was celebrated in a simple, informal dinner by Rayonier Incorporated at Shelton, Wash., site of mill. These pictures were taken at dinner (all are Rayonier officials and employes unless otherwise designated); Top row (l. to r.): Meder Johnson, Chief Engineer, Central Eng. Div., Olympia, Wash.; Morton B. Houston, Northwest Representative, Seattle; Lyall Tracy, Resident Manager, Hoquiam, Wash.; W. E. Breitenbach, Vice Pres., Port Angeles, Wash.; Dr. Wilson Compton, President, Washington State College; George W. Cropper, Resident Mgr., Shelton. In second row are Dr. Compton and Mr. Cropper again; M. N. Deggeller, Resident Mgr., Shelton. In second row are Dr. Travis of Shelton; John W. Bagwill, Sales Promotion Mgr., New York; Dr. Arthur N. Parrett, Director, Central Research Laboratory, Shelton, and W. L. Jessup, Publisher, Shelton-Mason County Journal.

J. D. Sullivan, Purchasing Agent, Seattle, was also a guest.

The group of 20-year pin winners are in lower photo.

Bottom row (l. to r.): Jasper A. Heminger; Elmer C. Sytsma; Nick Ruff; Velza Adams, bleach liquor maker; Ernest Dahlgren, yard foreman; Bernhard T. Winiecki, in charge of waste liquor disposal unit; Arthur J. Ferguson, chief plant supt., Vivian T. Morgan, fishing room supt., and Mr. Cropper.

Middle row: S. V. Pearcy, electrician; Paul C. Dittman, chip plant shift supt; George Young, charge of store room; Edward Fuller; W. W. Kullrich, chief electrician; Harold T. Emery; Clarence Weston, machine tender; A. E. Lemke, and Edward Buchanan.

Top row: Tony Servidio; George W. Cooper, pipefitter foreman; James H. Rutledge; Andy Harris; Charles DeMoss, finishing room shift supt.; E. J. McGill, pulp mill supt.; T. J. Seljestad, tour foreman; Charles R. Hurst and Axel Hendrickson. Not in picture: Myron Lund and Albert Thompson.

In a simple, informal and "homey" type of dinner, without fanfare or fancy speech-making, Rayonier Incorporated celebrated on June 4 the 20th anniversary of the first bleached sulfite pulp mill in the state of Washington, constructed at Shelton, Wash. First pulp was produced in May, 1927.

Dr. Wilson Martindale Compton, nationally known economist, educator and forest industry executive, who recently became president of Washington State College after 25 years as executive director of the National Lumber Mfgrs. Association, and a founder of the American Forest Products Industries, Inc., was the principal speaker.

A message from Edward Bartsch, of New York, president and chairman, was brief and to the point. He congratulated pin winners (names of winners of 20-year pins are given in caption under picture on this page) and the "teamwork" of employes. He said "I see unlimited possibilities for growth and service."

Resident Manager George Cropper, toastmaster, might have made quite a speech introducing Dr. Compton, whose family runs strongly to college presidents all over the country, but he showed respect for both the feelings of his guest and the intelligence of his Rayonier staff by introducing the speaker in just six words.

Dr. Compton talked about the responsibilities and opportunities for research and advancement of civilization in a democracy and other thought provoking things. But he did it in such a personal, man-to-man way, relating incidents from his own experience in this country and abroad, that there weren't any high-sounding phrases or "headline" statements to quote. Thus he, too, showed a fine sensibility for i. q. of a Rayonier audience.

Mr Cropper presented nearly 70 5 to 20-yr. pins and received his own 20-year pin for service at Shelton and Port Angeles from Vice-president W. E. Breitenbach.

At Shelton, 41% of employes, 238 of them, now have service pins.

Bathurst Promotion

R. H. Christian of Montreal has been appointed assistant to the vice president and secretary treasurer of Bathurst Power & Paper Co., according to announcement by President R. L. Weldon. He was formerly with Abitibi in Toronto.

Expansion in Research Announced by Youngman As He Tells Pin Winners Wood Supply Is Adequate

Some kind of a record for service pin presentations must have been made at Camas, Wash., on the evening of May 29. It climaxed a week of similar dinners for Crown Zellerbach employes—the preceding ones being at Port angeles, Wash., West Linn and Portland, Ore.

And what a climax! For two hours almost—from 8:20 p.m. to 10:10 p.m. —tall, jaunty, silvery-haired Louis Bloch was on his feet, making each of the 388 presentations an individual and distinct experience for the recipient. In the audience, men and women less than one-third or one-half his age, watched with mingled awe and admiration as the chairman of the company carried out his assignment. His gallantry, wit and aplomb were just as evident at the end as they were at the beginning. It was a grand performance. The pin winners—5 to 45 years—represented 6,165 years of service.

In the three preceding dinners held at other Northwest centers in less than one week's time, J. D. Zellerbach, president, did the honors. He crowded into an overlapping two weeks period, with the dinners, an appearance in a labor relations seminar of national leaders and educators at the University of Washington and co-chairmanship of the ten-day long Pacific Coast pulp and paper industry wage negotiations in Portland.

In the principal address at Camas, Vice President Frank N. Youngman assured employes that Crown Zellerbach is "doing something" about their's and the company's future and said "we expect to be around, in a business way, as long as anyone else who is making and selling paper."

He announced that the Central Technical Department for the company at Camas, "with a past record for developing such products as special pear and citrus wraps and wet strength raising tray paper, is expanding its staff and its research program."

Mr. Youngman said "our foresters are talking about what we are going to be getting from our lands after the year 2,000 A. D. and beyond."

"We don't have all the answers yet, " he said, "but we are definitely on our way."

Besides spending many millions in the paper mills for new machinery, he said, Western Waxed Paper Co. is spending "a great deal" on a new plant and research laboratory at San Leandro, Calif., and at Nortth Portland and Los Angeles.

"Before spending a cent of this money," he said, "we insisted on definite assurance that we would be able to grow pulpwood needed to support these operations forever."

According to Mr. Youngman, the Crown Z organization, with 10,300

WITH AGE RETIREMENT NOW IN EFFECT, it will be mighty rare if there are any more 50-yr., service pin winners. This group were tops at recent Crown Z Camas dinner (left to right): Arthur O. Pieritz, Shift Foreman, Paper Machines; Claude A. Smith, Yard and Tramway Supervisor; Tom D. Poulas, Machine Clothing Foreman; Erma A. Stout, Bag Factory Office; and Jas. G. Salisbury, Asst. Chief Elect. Engineer. All received 40-yr. pins except Mr. Smith, who got 45-yr. button. Louis Collard, Machinist and 40-yr. man, was not present.

AT CAMAS DINNER:

Upper left: Vice Pres. F. N. Youngman, principal speaker, who said: "Before spending many millions of dollars for new machinery in mills of Washington and Oregon, we insisted on definite assurance that we would be able to grow the pulpwood to support these operations forever."

Upper right: Toastmaster Vic Gault, Personnel Supervisor, and William E. Lambert, Mayor of Camas, and Supervisor of Mill Printing Dept., who received 20-yr. pin.
Lower left: William D. Welsh, Executive Assistant, obliged by singing "My Wild Irish Rose" with Jerry Brown, radio singer from Portland, Ore.

Lower right: Mrs. Fred Sievers receives 35-yr. pin for her husband, Groundwood Supt. Sievers, who was convalescing from an operation. Mr. Bloch is congratulating her and her husband.

AT BIG SERVICE PIN DINNER in Camas, Wash.: Top (left to right): Mrs. Claude H. Smith; her husband, Yard and Tramway Supervisor, who received 45-yr. pin; Mrs. Frank N. Youngman, wife of the Crown Z Vice President who was principal speaker; Miss Elizabeth Schwartz and Chairman Louis Bloch. Miss Schwartz, Secretary to Vic Gault, Personnel Supervisor of the big Camas Mill, received a 20-yr. pin from Mr. Bloch.

Around table in lower picture (clockwise): Mrs. Grondona; Charles A. Grondona, an Assistant Resident Mgr. at Camas; Otto Hartwig, General Safety Director of all mills; Mrs. Fred Sievers (who received 35-yr. pin for her husband, Groundwood Supt. Sievers, who was recovering from a serious operation); Mrs. Charters; Geo. W. Charters, Asst. Res. Mgr., and Mrs. A. G. Natwick, wife of Asst. Res. Mgr. Natwick. Just out of picture on left is Leonard Ziel, new Res. Mgr. at Port Townsend. Directly behind Mrs. Sievers, at speaker's table, is Jack Hanny, Res. Mgr. at Camas. On either side of him are Vice Pres. Frank N. Youngman and Mrs. Youngman.

employes, now requires $9,000,000 a month to meet expenses for supplies, labor and taxes, in that order as to size of amounts expended. Taxes are $33,000 per day.

Pin Winners

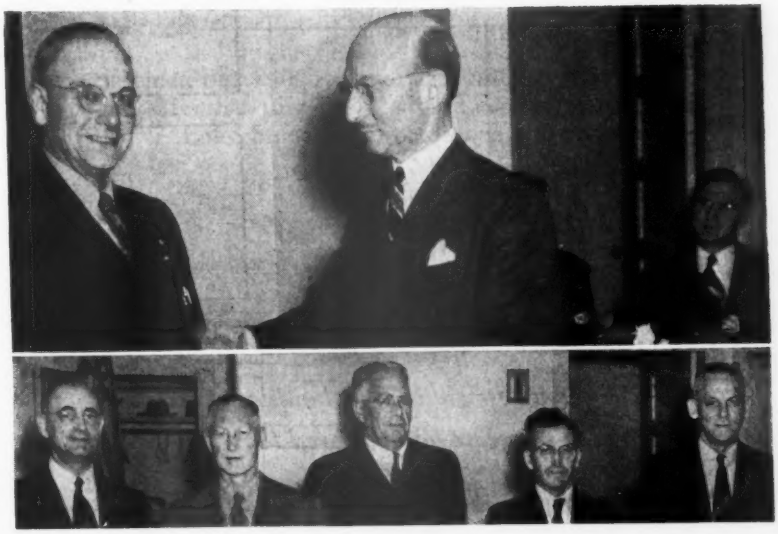
Mr. Youngman, himself, received a 20-year pin from Mr. Bloch at the Portland dinner two nights previously.

In making the Camas presentations, Mr. Bloch called pin winners "my associates" and he said he was working as hard today as he was "33 years ago when I started in the paper bag factory, wearing overalls." At the close of the meeting he called upon all to stand in tribute to Albert Bankus, vice president in charge of manufacturing, who was then critically ill and who passed away a few days later.

Mrs. Vera W. Berney, women's personnel supervisor, was in charge of arrangements and planning and had the dining room beautifully and lavishly decorated in what are popularly called "Jack Hanny's roses"—the Paul Scarlett Ramblers which then Resident Manager Hanny (successor to Mr. Bankus a few days later) had planted on the mill grounds.

Vic Gault, personnel supervisor, was master of ceremonies and Mr. Hanny made his last address of welcome in 17 years—and his shortest, for it was written on the back of his tiny place card, he said.

Principal pin winners are named and shown in pictures accompanying this article. In the 30-year group, were included Mr. Gault; Gustaf Lorenz, assistant to the paper machine foreman; Wm. Ginder, boss machine tender, and Lynn Morgan, pipe foreman. Safety Supervisor Jack Robertson was in a large group of 25-year winners; Bill Lambert, mayor of Camas and printing supervisor; Miss Elizabeth Schwartz, Mr. Gault's secretary, and Paul Millard, finishing room supervisor, were 20-year winners. Ted McGlothlin, brother of the kraft mill superintendent, and Jim Hull, in charge of equipment research in the Central Tech. Dept., were among 15-year winners, and Dr. Walter Holzer, also of that department, in charge of fibrous raw materials research, were 10-year winners. In the 5-year group were Mrs. Berney and Mrs. Beverly M. Bigler, sec-



AT PORT ANGELES Pin Dinner, Mathew L. Rauch (upper left) receives 40-year pin from President J. D. Zellerbach as Resident Mgr. Malcolm Otis looks on. Lower row are 35-yr. pin winners (l. to r.): George Johns, Eugene Henderman, Otto A. Pettit, John Somers and Charles Spicer. Leon Dupuis, another 35-yr. winner, was not present. George Ostenson received a 30-yr. pin.

HERE IS GROUP that received 35-yr. pins at Crown Z Camas mill dinner (left to right): Price E. Pickett; Lee V. Shannon, Boss Machine Tender; Arthur F. Newcomb, Paper Machine Supt.; Hugh E. Burdon, Office Mgr.; Mrs. Fred Sievers, who received for husband, who is Groundwood Mill Supt.; Clifford M. Koplin, No. 1 Finish Room Foreman; Herbert W. Duvall, Converting Plant Supt.; Chas C. Francis; Louis Gfeller, and Gust Peter Goulis.

retary to Technical Director William R. Barber, director of the Central Tech. Dept.

At West Linn and Port Angeles, Mr. Zellerbach discussed the future of the company and its program for sustained wood production. John L. Farley of Portland, public relations department, was toastmaster at Port Angeles and Mr. Youngman at West Linn. The new managers, P. T. Sinclair at West Linn, and Malcolm J. Otis, at Port Angeles, welcomed guests, and C. E. Bruner, management consultant for the company, was another West Linn speaker.

Principal pin winners at Port Angeles are shown in an accompanying picture. At West Linn a 45-year pin went to C. D. Rittenhouse, and 40-year pins to Wm. Allen, R. A. Austin, Wm. Carden, Edmond Johnson, Frank Sekne, Henry Stall and P. Waitkevicz.

San Francisco Dinner

A banquet held by Crown Zellerbach in San Francisco in June honored 28 with service pins, and two retired employes with plaques.

R. A. McDonald, executive vice president, was toastmaster, who greeted the banqueteers. J. D. Zellerbach made an address and Louis Bloch presented pins, including a 40-year to L. D. Hoiland, 35 to P. F. Middlebrook, R. E. Richmond, and 30 to G. J. Ticoulat.

Fred Sievers Undergoes Serious Operation

Fred Sievers, groundwood mill superintendent at Crown Zellerbach Corp., Camas, Wash., was recovering very nicely last month from a serious operation he underwent in mid-May.

Zellerbach Is Delegate For U. S. At Geneva

J. D. Zellerbach, president, Crown Zellerbach Corp., San Francisco, is the U. S. delegate for industry at the International Labor Conference, Geneva, Switzerland, June 19-July 11.

Assistant Secretary of Labor David A. Morse and Senator Elbert D. Thomas, Utah, for government, and Robert I. Watt of AFL, for labor, are the other U. S. delegates.

Two Crown Z Men Join Central Tech. Dept.

P. T. Dickie and E. Clinton Ash., Jr., both formerly in the Navy and formerly employed in Olympic Peninsula mills, have joined the Central Technical Department of Crown Zellerbach Corp., Camas, Wash., according to W. R. Barber, technical director of the company.

Mr. Dickie, from the Port Angeles technical department, will do research work under Dr. Walter F. Holzer, in the Fibrous Raw Materials Division. Mr. Ash, from the Port Townsend technical department, will work on chemical engineering problems.

Grondona Family Find Home in Portland

Charles A. Grondona, who recently became an assistant resident manager at Crown Zellerbach Corp.'s Camas, Wash., mill, is living at 3826 Northeast 26th St., Portland, Ore., about a 40-minute drive, but is hopeful of finding a permanent home eventually in the nearer mill neighborhood.

Two of his three children probably will board at school in Portland.

Former Detroit Specialist Joins Western Waxed Paper Co.

George F. Chase, formerly with Detroit Waxed Paper Co., has joined Western Waxed Paper Co., division of Crown Zellerbach Corp., North Portland, Ore., according to A. S. Hammond, manager of the gummed tape division.

Mr. Chase will specialize in packaging research and development. The Detroit Waxed Paper Co. became quite widely known in recent years for its pioneering work done in paper plastics development.

A Big Night On the Natwick Farm

A. G. "Buff" Natwick, assistant resident manager of the Crown Z mill at Camas, had an eventful night on his farm overlooking the Columbia River on his first night back from being honored by the Migratory Peddlers at the Gearhart convention.

In trying to find a board to fix his bed, Buff walked into a piece of plywood in his dark basement and received a forehead cut. When Mrs. Natwick had him bandaged and they were just getting back to sleep, a bellowing cow awakened them outside their window. Not succeeding in routing the cow alone, Buff called on his dog. The barking dog woke the rooster. The night was still young, but the crowing rooster woke the farmer employed by the Natwicks. When the farmer came out of his quarters loaded with equipment to do the morning milking chores, that was the last straw. There was no more sleeping for laughing that night.

MISS LOUISE ALLEN, first full-time Librarian to be employed by the expanding Central Technical Department of Crown Zellerbach Corp., at Camas, Wash., according to announcement by W. R. BARBER, Technical Director of the company. Miss Allen holds both science and library administration degrees from the U. of Michigan. Her home was Portland, Me., where she was librarian at a junior college and later was a Providence, R. I., public library branch librarian.

The Crown Zellerbach Central Technical Department library is one of the most extensive in the industry, the 1500 books of the Dr. Harold E. Hibbert library acquired a year ago being only a portion of it.

Right—RICHARD W. MORSCH, new Manager of Los Angeles office of J. O. Ross Engineering Corp., who for past 10 years made headquarters at New York. He succeeds W. A. Schoenbeck who is returning to New York office. Mr. Morsch is graduate of the University of Colorado and joined Ross in 1937. He will direct all sales and engineering for air processing systems on Pacific Coast.

Hawley Mill Sale Is Cancelled

Sale of Hawley Pulp & Paper Co., Oregon City, Ore., for $7,900,000 was canceled on May 31 and a $300,000 initial payment was ordered forfeited. John H. Smith, president of the company, said that at the noon deadline May 31 no further payments had been made by John D. Wilson, of Scarsdale, N. Y.; R. B. Gerard, of Kent, Conn., and James H. Molloy, of Philadelphia, the respective buyers or buyers' representatives.

Distribution of the down payment to depositing shareholders amounts to slightly in excess of $1.50 per share.

Fibreboard Timber Back New Antioch Mill

Fibreboard Products Inc. has acquired 75,000 acres of timberland in Sierra and Nevada counties in California, and Washoe county, Nevada, according to D. H. Patterson Jr., president.

This is part of Fibreboard's $28,000,000 postwar expansion program, largest unit of which is to be a new kraft pulp and board mill at East Antioch, Calif., representing a 15-million-dollar investment. In addition to its newest acquisition, Fibreboard has large timber holdings on the Olympic Peninsula in Washington.

The company will rehabilitate the Hobart Mills townsite, near Truckee, Calif., where Hassler Lumber Co. will saw pine and the higher grade fir, and will log for Fibreboard on contract. The site will be used for rail log loading to the East Antioch mill. Fibreboard will re-establish the Truckee-Hobart Mills railroad and build 15 miles of logging road this year.

Schmidt Lithograph Co. Marks 75th Year

Seventy-five years ago a penniless young cabin boy landed in San Francisco after a long and stormy trip around the Horn from his native Hamburg.

This new arrival, Max Schmidt, found a job with the lithograph establishment of G. T. Brown & Co., but after a few months, decided to go into business for himself. He rented a little room, only 10x12', for $10 a month, and hung out a sign bearing the name of M. Schmidt & Co., forerunner of Schmidt Lithograph Co., which is this year celebrating its 75th anniversary.

With its huge plant in San Francisco occupying 12 acres of floor space, its finely equipped plant in Honolulu, and sales and service offices throughout the West and in the more important marketing centers of the country, the company presents a remarkable method of growth and success.

Products of Schmidt Lithograph Co. embrace the whole range of lithography from labels to complete display ensembles, and from 24-sheet posters to multicolor brochures.

Officers to day include second and third generation Schmidts. Richard Schmidt is president and treasurer; Carl R. Schmidt, vice president, assistant treasurer and general manager; Otto A. Schoning, vice president; George D. Taylor, secretary, and Morton Schmidt, assistant secretary.

The board consists of: I. L. Borden, A. L. Chickering, Sherman Chickering, E. C. Hueter, J. K. Moffitt, C. R. Schmidt, M. A. Schmidt, R. Schmidt and O. A. Schoning.

Two Joes of Esco Are New Office Chiefs

Joseph A. Blake, who has headed the Electric Steel Foundry Co. Seattle branch office, has been promoted to the managership of the Los Angeles branch office of the company and was to take over his duties there about July 1.

The managership of the Seattle office will be taken over by J. E. McQuaid. Mr. McQuaid was in the sales department of Esco's San Francisco office but, previous to the last few years, received his training in the main office at Portland.

Joe Blake expressed great reluctance in leaving his many friends in Washington.

J. H. McCarthys Move To New Tacoma Home

Justin H. McCarthy, chief engineer, Kraft Pulp Div., St. Regis Paper Co., Tacoma, Wash., moved his family to their new home on Gravelly Lake in South Tacoma last month. His new address: Box 801, Route 1, Tacoma 9, is just a few steps from the Tacoma Country Club which is handy for the golfing McCarthys —father and two sons. The eldest son, Justin, Jr., is entering Dartmouth, his father's Alma Mater, next fall.

Columbia River Mills Buy Coast Timber

Columbia River Paper Mills, Vancouver, Wash., purchased stock and timber held by Werner Timber Co. of Taft, Ore., in May. This transaction involves 12,000 acres of timber and logged-over lands, including in excess of 300 million feet of timber, plus logging equipment.

Ray Dupuis Move To Oswego Home

Ray Dupuis, new assistant resident manager at Crown Zellerbach Corp., West Linn., Ore., moved his wife and two children into their new home at Ridgeway and Vista Road, Oswego, Ore., in early June. They lived at Port Angeles.

Builds Dormitory for Girls On Time Off

Tom Hutchison, acid maker at Puget Sound Pulp & Timber Co., recently completed a new domitory for Campfire Girls at Camp Kirby on Camano Island. Tom spent a great many of his days off to have the building completed by the 1947 summer season. Tom's two daughters are honor members of the Bellingham (Wash.) Campfire unit.

Coast Box Groups To Meet at Lake Tahoe

The 1947 annual convention of the Pacific Coast Box Mfgs. Association will be held at Tahoe Tavern, Lake Tahoe, Calif., Sept. 7-10. Bud Field has been chosen as general chairman, according to H. H. Worth, secretary.

Pageant Princess

One of the Princesses elected to preside over the Bellingham (Wash.) Blossom Festival was Miss Shirley Larson, secretary to Carl Sahlin, logging manager of the Puget Sound Pulp and Timber Co. Miss Larson received an air trip to Hollywood as the prize for coming in second in the campaign for Queen of the pageant.

Meder Johnson Again Builds His Own Home

The housing problems hold no worries for Meder Johnson, recently appointed chief engineer of Rayonier Incorporated. He is building his own home on Maringo Road, Olympia, Wash., and doing most of the work himself. He had previously done most of the work on his former home in Port Angeles, Wash.

Mr. Johnson, who heads up a central engineering staff of a dozen trained men in Olympia for Rayonier, made his first trip to New York and had his first sleep in a Pullman shortly after his appointment. He and his wife and two children were living in an Olympia auto court till the new home was finished.

Oregon Pulp & Paper Co. Lands Now Tree Farm

Application of Oregon Pulp and Paper Co., Salem, Ore., for membership in Willamette Valley Tree Farms has been approved by the farm's trustees. This brings the membership to a total of seven companies, including Weyerhaeuser Timber Co., with a combined area of approximately 350,000 acres.

Property of Oregon Pulp and Paper Co., now certified as a tree farm, totals about 42,000 acres, and contains a wide range of forest conditions, ranging from reproduction to old growth forest. The land is in three general areas: Monument Peak area on North Santiam River; Luckiamute and Rickreall River drainages southwest of Dallas; and on the Coast in Lincoln County. An inventory of company property adequate for development of future plans has been requested

Mechanical Center At Longview Fibre Co.

A Mechanical Center has been completed and recently occupied at Longview Fibre Company, Longview, Wash. This centrally houses most of the shops and mechanical staff of the plant under one roof, including the mechanical superintendent, Virgil Peters, and his assistants. The building covers an area of about 12,000 square feet and houses the following shops: Paint, masons, electrical, mill wright, pipe, machine, instrument, welding, carpenter and blacksmith. A storage yard in conjunction is now surrounded by cyclone fence.

Barnes and Clarke On Tour for Inco

R. T. Barnes, Jr., who toured the pulp and paper mills for International Nickel Co. before the war, is back in this industry now as representative for the Inco Nickel Alloys department of that company and has started off with a two-months' long tour of all the pulp and paper mills in a great arc sweeping across Canada and down the Pacific Coast to Los Angeles which began May 21 and will bring him back to New York on July 21.

In visiting all the Canadian mills he was accompanied by K. H. J. Clarke, of Toronto, representative of International Nickel Co. of Canada. Incidentally, they remarked that they saw copies of PULP & PAPER Industry in mills throughout Canada.

Monel and Inconel as well as nickel are the Inco materials used in fabrication and represented by them.

Anti-Corrosive Rubber Developed By Pioneer

During the late war, a great deal of work was done by the rubber industry in coating under-water sections of ships with a film of rubber to check corrosion and erosion of metal parts. On the West Coast, most of the contract work of this kind was done by crews trained by Pioneer Rubber Mills of San Francisco.

Such protection is brought about by the firm bonding of natural rubber, or American-made rubber, to the exposed surfaces of metal or wood tanks, to the inside of standard cast iron pipe and fittings, or by application to outer surfaces of impellers and shafts.

With developments in rubber compounding and the improvements in bonding cement, Pioneer reports fabricated steel tanks with a vulcanized rubber lining are replacing many other systems for corrosive or erosive chemicals, and that rubber lined castiron pipe and fittings are replacing more expensive types.

The Pioneer Rubber Mills technical staff headed by John A. Liljegren has developed a series of 31 different compounds using six basic types of rubber to withstand any particular set of conditions. Another of the Pioneer Rubber Mills' developments is the exclusive Metabond vulcanizing process to give the maximum adhesion of rubber to metal. The development of Metabond was a wartime necessity, and its postwar industrial application is proving of great value in insuring the thorough and consistent rubber-to-metal bond.

Dr. Long Asst. Mgr. Hercules PMC Dept.

Dr. John H. Long has been appointed general manager of the Paper Makers Chemical Department of Hercules Powder Co.

Dr. Long engaged in market development and technical liaison with customers from 1933 to 1943 and assisted in development of many synthetic resins, naval stores, and cellulose products. He was in charge of sales research division from 1943 to 1946, when he transferred to the PMC Department as special assistant to the general manager.

New Waldron Mechanical Handling Bulletin

John Waldron Corp., New Brunswick, N.J., announces its new Mechanical Handling Bulletin No. 120, prepared to meet the growing need for general information concerning the mechanical handling of paper and other materials that are to be processed in web form. Copies may be had by writing.

Paper Buys Mill, But Fire Destroyed It

Failure of expected Finnish shipments to arrive brought on a newsprint crisis recently for the Los Angeles *Daily News*. The tabloid eleminated all display adversiting except entertainment and cut number of pages to 16 and 20, less than half of normal.

Early this year the Los Angeles paper brought a Norwegian paper mill, which fire partly destroyed last march. Now the mill cannot make any newsprint deliver-

Union Pacific Acts To Relieve Car Shortage

"Keep 'Em Moving" is the slogan adopted by newly formed bureaus in Key cities by Union Pacific freight officials under direction of G. F. Ashby, president of the railroad.

Direct, on-the-ground, action to expedite loading and unloading of freight cars, speeding up necessary repairs, minimum detention of cars in yards, shops and at storehouses are the aims of the speed-up program on the Union Pacific to aid in the relief of car shortages. The U. P. presently has outstanding orders for 90,000,000 worth of new equipment.

Calco Announces Major Promotions

Appointment of Kenneth H. Klipstein as an assistant general manager in charge of the development department and V. E. Atkins as manager of manufacturing is announced by the Calco Chemical Division, American Cyanamid Co.

Ames B. Hettrick, formerly an assistant manager of the Pigment Department, has been named assistant manager of manufacturing.

NEW SUBSCRIPTION RATES ON JULY 1

Effective July 1, 1947, new subscription rates to PULP & PAPER INDUSTRY:

UNITED STATES AND CANADA

1 Year	$3.00
2 Years	$5.00

FOREIGN

1 Year	$4.00
2 Years	$7.00

Combination Special:

One year's subscription $5.50 (new or renewal) and a copy of the DIRECTORY of Pacific Coast Pulp & Paper Industry.

NORTH AMERICAN REVIEW NUMBER—Single copy rate $2.00

DIRECTORY—Single copy rate $3.50.

Group Subscription Rates: $2.00 per year in groups of 5 or more.

If you wish to take advantage of present lower rates, as shown on page 19, be sure your subscription order is in the mails before July 1st.

New West Va. Official

William L. Merrilees, of 219 Bronx River Road, Yonkers, N.Y., was elected an assistant secretary of West Virginia Pulp and Paper Co., at a board meeting recently.